

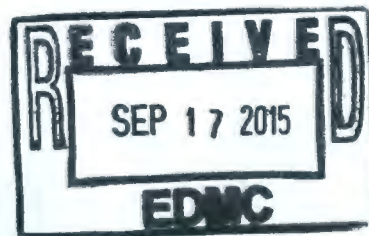
Fate and Transport Modeling for Baseline Conditions for Remedial Investigation/Feasibility Studies of the 200-BP-5 and 200-PO-1 Groundwater Operable Units

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

Contractor for the U.S. Department of Energy
under Contract DE-AC06-08RL14788



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Richland, Washington 99352



Fate and Transport Modeling for Baseline Conditions for Remedial Investigation/Feasibility Studies of the 200-BP-5 and 200-PO-1 Groundwater Operable Units

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APPROVED

By Ashley R Jenkins at 9:17 am, Jul 15, 2015

Release Approval

Date

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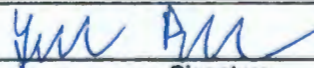


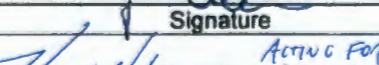
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Environmental Calculation File

Fate and Transport Modeling for Baseline Conditions for Remedial Investigation/Feasibility Studies of the 200-BP-5 and 200-PO-1 Groundwater Operable Units

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Terms

3D	Three-dimensional
AWLN	Automated Water Level Network
CHD	Constant Head
CHPRC	CH2M Hill Plateau Remediation Company (DOE contractor)
COPC	contaminant of potential concern
CPGW	Central Plateau Groundwater Model
DOE	U.S. Department of Energy
ECF	environmental calculation file
Ecology	Washington State Department of Ecology
EMDT-BC	Electronic Modeling Data Transmissal-Boundary Condition
EPC	Exposure Point Concentration
FS	Feasibility Study
HEIS	Hanford Environmental Information System
HFB	Horizontal Flow Barrier
HISI	Hanford Information System Inventory (software database)
HSGM	Hanford South Geologic Framework Model
HSU	Hydrostratigraphic Unit
MODFLOW	Modular three-dimensional finite-difference groundwater flow model
MCL	Maximum Contaminant Level
MT3D	Modular three-dimensional multispecies transport model
OU	Operable Unit
P2R	Plateau to River
PNNL	Pacific Northwest National Laboratory
RI	Remedial Investigation
TC&WM EIS	Tank Closure and Waste Management Environmental Impact Statement
TEDF	Treated Effluent Disposal Facility
TMR	Telescopic Mesh Refinement
WMA-C	Waste Management Area C

1 Purpose

The purpose of this environmental calculation file (ECF) is to document the simulation of the fate and transport of contaminants in groundwater within the portion of the affected unconfined aquifer associated with the 200-PO-1 and the 200-BP-5 Groundwater Operable Units (OUs) at the U.S. Department of Energy's (DOE's) Hanford Site. The modeling results will be used for the following purpose:

- Estimation of future groundwater concentrations of contaminants of concern (COPCs) to support risk screening within the 200-PO-1 Groundwater OU for an addendum to the 200-PO-1 Remedial Investigation (RI)
- Estimating future groundwater concentrations of COPCs to support risk screening within the 200-BP-5 Groundwater OU for the 200-BP-5 RI

The scope of this modeling effort is confined to estimating the future down gradient concentrations based on present ground water contamination within the unconfined aquifer underlying the 200-PO-1 and 200-BP-5 Groundwater OUs. The COPCs, selected as part of the baseline risk assessment for the 200-PO-1 and 200-BP-5 RI, that were simulated using this model are:

- For the 200-PO-1 RI: cyanide, tritium, strontium-90, iodine-129, technetium-99, nitrate, and uranium
- For the 200-BP-5 RI: hexavalent chromium, tritium, strontium-90, iodine-129, technetium-99, nitrate, chromium, cyanide, and uranium

The objective of this modeling calculation is to provide a description of current and expected future groundwater contaminant concentrations where no action is taken for a remediating existing contaminant plumes at decision points within the boundaries of the 200-PO-1 and 200-BP-5 OUs. This modeling calculation evaluates a no-action scenario for the baseline risk evaluation for a 1000 year performance period. The model developed for this calculation will be developed further to meet later modeling needs for the Feasibility Study (FS).

2 Background

The 200-PO-1 RI (DOE/RL-2009-85, *Remedial Investigation Report for the 200-PO-1 Groundwater Operable Unit*) was completed based on modeling reported in ECF-200PO1-09-2352, *200-PO-1 Remedial Investigation Report Central Plateau Groundwater Fate and Transport Modeling*, for the portion of the OU that was within the model domain of the Central Plateau Groundwater Model (SGW-47631, *Model Package Report: Central Plateau Groundwater Model Version 3.3*). Fate and transport of contaminants in the distal portion of the OU that was beyond the extent of the Central Plateau Groundwater Model (CPGW) were addressed using streamtube models (ECF-200PO1-09-2007, *200-PO-1 Operable Unit Remedial Investigation Report – Contaminant Fate & Transport Modeling in the Distal Portion of OU*; ECF-200PO1-10-0393, *Evaluating Adequacy of One-Dimensional Transport Calculation in the Saturated Zone of the Far-Field Portion of the 200-PO-1 Operable Unit*). While this two-model approach was demonstrated adequate for the purposes of the 200-PO-1 RI, it was agreed between DOE and the Washington State Department of Ecology (Ecology) during the comment resolution process that a single three-dimensional (3D) aquifer model would be necessary to progress to the FS.

3 Methodology

The approach to the groundwater fate and transport modeling in this calculation utilizes a mathematical hydrogeological construct to represent the physical conditions within the unconfined aquifer of the 200-PO-1 and 200-BP-5 OUs. This construct was developed using modified versions of the acquired computer software MODFLOW and MT3DMS. MODFLOW solves the governing equation for groundwater water flow within the unconfined aquifer. The flow velocities calculated by MODFLOW were then used by the MT3DMS software that solves the governing equation for advective-diffusive contaminant transport to simulate the movement of each contaminant in the unconfined aquifer. The model applied in this calculation is described in CP-57037, *Model Package Report: Plateau to River Groundwater Transport Model Version 7.1*.

4 Assumptions and Inputs

Provides all the relevant assumptions and inputs necessary to perform the calculation, including a brief explanation of the basis for each and the methodology step it is supporting. Copies of the original material should be provided as part of the Environmental Calculation File (ECF) to provide a complete stand-alone and reproducible package.

4.1 Model Domain

The objective for spatial discretization of the Plateau to River(P2R) Model is primarily to support evaluation of fate and transport of contaminant transport plumes that have and/or will migrate beyond the Central Plateau. Evaluation of smaller-scale plumes comprised of low-mobility contaminants will be performed with more-appropriately scaled refined models, such as telescopic mesh refinement (TMR) models based on either the CPGW or P2R Models, where appropriate. Accordingly, the spatial discretization of the P2R Model is selected to provide an appropriate balance between adequate resolution of flow and transport for these larger plumes comprised of more mobile contaminants and acceptable simulation time of available computing platforms. Figure 4.1 shows the areal extent of the numerical model grid. There are a total of 135 rows and 155 columns of computational cells. Each grid block is spaced at 200 m by 200 m. The model origin at the lower left hand corner of the grid is 564000 m and 116000 m easting and northing, respectively in the Washington State Plane South North American Datum 1983 projection. The model consisted of seven model layers. The hydrostratigraphy represented in these model layers is discussed in Section 4.3.

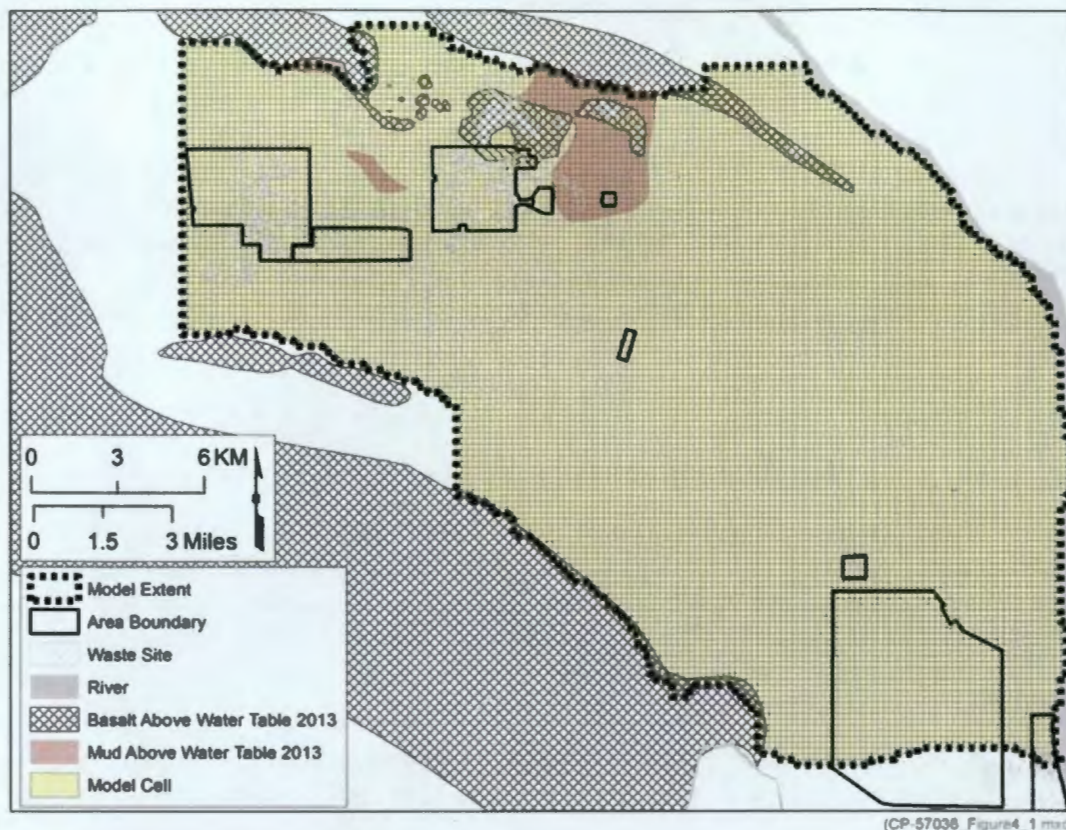


Figure 4.1 – Model extent and grid for the P2R model.

4.2 Simulation Periods

A 1000 year simulation was completed to support baseline RI/FS assessment and exposure point concentration (EPC) development. The start date of the simulation is 1/1/2013. The first 50 years are simulated using yearly stress periods. At this point decadal stress periods are used for the next 50 years. Two more stress periods are simulated with lengths of 200 years and 700 years. The boundary conditions for the final two stress periods are identical except for a sensitivity simulation regarding continuing sources. After the first 100 years a 200 and 700 year stress period were used for this evaluation. The shorter initial stress periods accommodate changes in the values assigned at boundary conditions based on expected behavior. By the end of the first 50 years the conditions at the boundaries are expected to remain relatively stable, so increased temporal discretization is not necessary.

4.3 Processes Simulated and Limitations to the Simulation

The MODFLOW/MT3D family of numerical groundwater simulators estimates groundwater flow and fate and transport based using packages that represent certain processes occurring in nature. For this simulation the processes and corresponding simulation packages are shown in Table 4.1. The table includes any limitations that the implementation of the particular package in MODFLOW/MT3D may impose on the model.

Table 4-1 – Groundwater processes, simulated packages, and limitations for the P2R model.

Groundwater Process		MODFLOW/MT3D Package	Limitations (if any)
Groundwater Flow	Recharge	Recharge Package	Considered recharge that hits the groundwater
	Columbia River	River Package	
	Injection/Extraction	Well Package	No multiwell interaction
	Head at model boundaries	CHD package	Assessment of remedial alternatives that effect flow of water should be sufficiently far from boundaries as to not significantly influence flow through the CHD boundaries
	May Junction Fault	HFB Package	
Transport Processes	Soil Adsorption	Reaction Package	Only Linear Sorption is considered.
	Radioactive decay	Reaction Package	
	Dispersion	Dispersion Package	
	Continuing Sources	Source/Sink Mixing Package	

4.4 Hydrostratigraphy of the Unconfined Aquifer

The geologic representation for the model is derived from the Hanford South Geoframework Model (HSGM) (ECF-Hanford-13-0029, *Development of the Hanford South Geologic Framework Model, Hanford Site, Washington*). The HSU definitions presented in ECF-Hanford-13-0029 include the Hanford and Cold Creek formations and the Ringold formation with the Taylor Flat, Unit E, Upper Mud, and Unit A members of that formation. Seven model layers are used to represent the seven HSUs are defined in the HSGM. Assignment of a numerical cell to an HSU is not dependent on model layer. The details regarding the assignment of HSUs to model layers are recorded in the *Plateau to River Groundwater Transport Model Package Report*, CP-57037, Rev.0.

4.5 Boundary Conditions

The boundary conditions for the numerical model represent interactions with the aquifer by water external to the model. These include water infiltrating through the vadose zone that becomes recharge, movement to and from the Columbia River, liquid discharges from waste sites, and extraction and injection at well locations. Figure 4.2 illustrates the locations and types of boundary conditions used to construct the P2R model. The details of each of these boundary conditions are discussed below.

4.5.1.1 Upper Boundary (Recharge)

The recharge boundary condition represents water that from the top surface of the model infiltrates through the vadose zone until reaching the saturated zone. This water can originate naturally or by anthropogenic sources such as waste site discharge. Each of these types of sources of recharge was included in the model using the MODFLOW Recharge package. This is similar to the approach used by the TC & WM EIS model. The following sections discuss how both natural recharge and anthropogenic recharge were handled in the P2R model compared with the TC & WM EIS model, respectively.

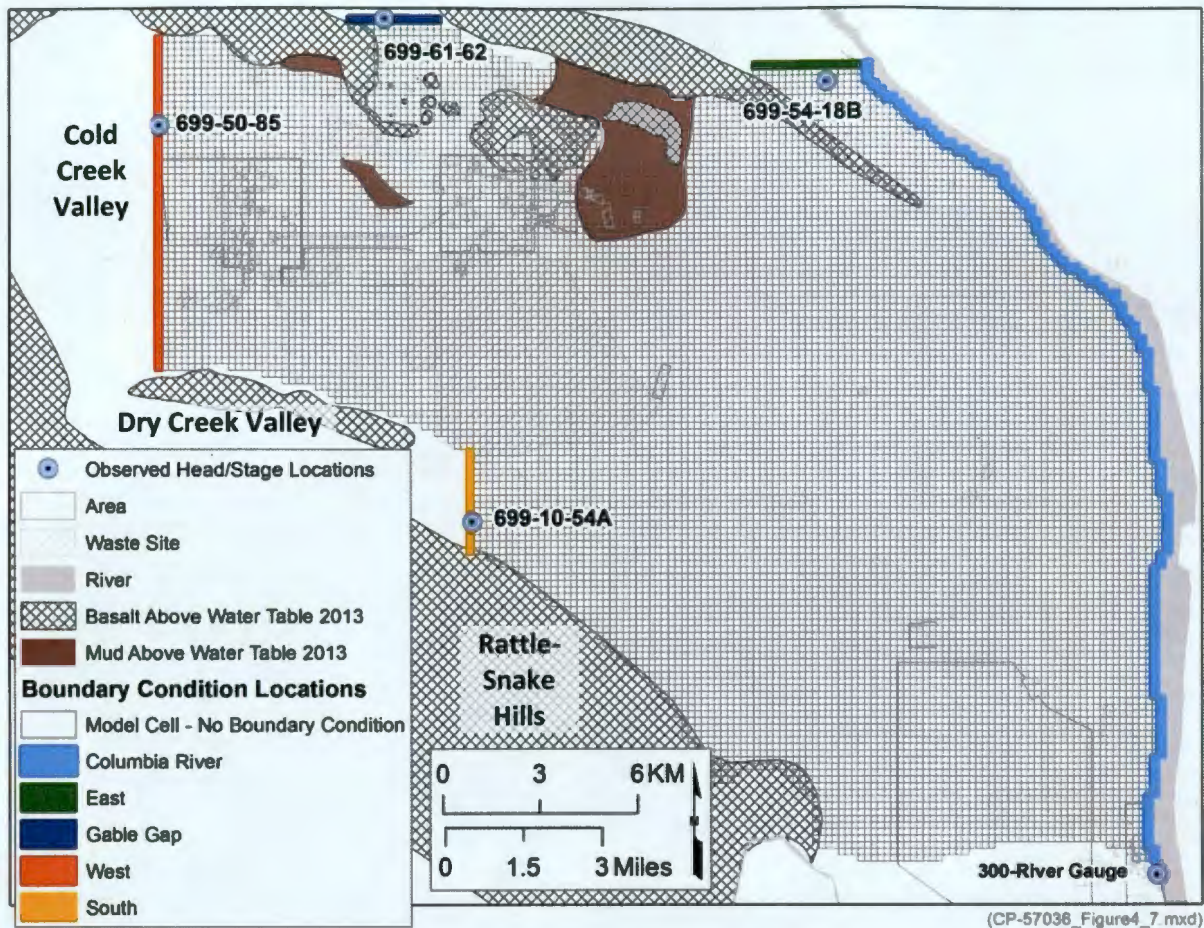


Figure 4.2 – Boundary condition locations used for the P2R model.

Natural Recharge

The natural component of recharge includes water originating as precipitation and infiltration through the vadose zone that ultimately reaches the saturated zone as recharge. The TC & WM EIS varied recharge spatially based on facility type. Waste sites (e.g., cribs and trenches) and tank farms were assigned a recharge magnitude of 50 and 100 mm/yr respectively. Any other location was assigned a value of 3.5 mm/yr. Each of these values was selected based on values listed in the *Technical Guidance Document* (DOE, 2005). For the P2R model, the values used in this report were used as the basis for recharge values. In order to account for differences in recharge based on the variability of surface soil (Hajek, 1966) at the Hanford site, recharge magnitudes were varied spatially based on soil type. This is consistent with the approach taken in previous modeling performed at the Hanford site (PNNL-14753, Rev. 1). Recharge values, shown in Table 4-2, by soil type for the Hanford site were taken from the Vadose Zone Hydrogeology Data Package for Hanford (PNNL-14702, Rev.1) to establish the initial range of recharge value by soil type. The major soil types, Sand, Sandy Loam, Silty Loam, and Dune Sand, in the P2R model are listed in Table 4.1 along with the simulated recharge value based on the model calibration discussed in section 4.4. The spatial distribution of these soil types are shown in Figure 4.3.

Table 4-2 – Soil type and natural recharge values.

Simulated Soil Type	Soil Types referenced in PNNL-14702, Rev. 1 used to develop range of recharge values	Natural recharge values (mm/yr)		
		Minimum	Maximum	Calibrated
Silty Loam	Warden Silt Loam	0.04	0.08	0.04
Sandy Loam	Ephrata Sandy Loam, Burbank Loamy Sand,	1.5	52	3.6
Sand	Rupert Sand, Hanford Sand	4	44	12
Dune Sand	Hanford Sand, Gravelled Surface	4	100	55

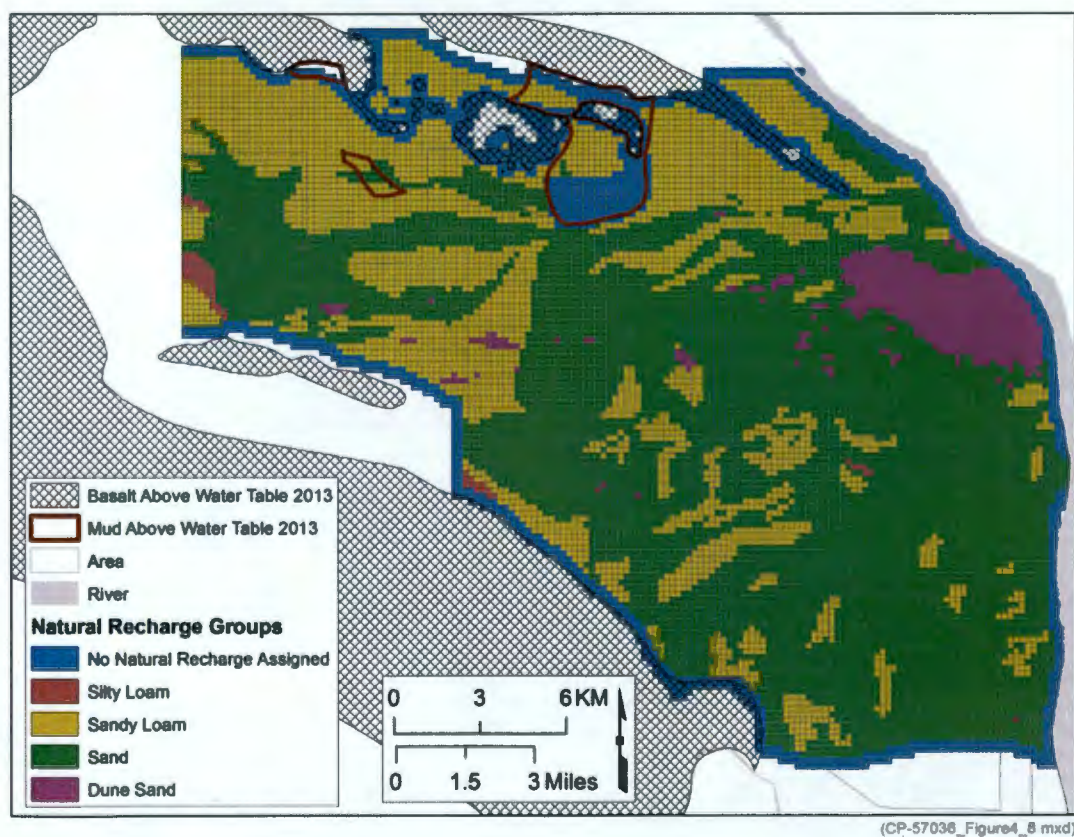


Figure 4.3 – Spatial distribution of soil types used to define natural recharge to the aquifer. (based on Hajek, 1966)

Anthropogenic Recharge

Fluxes from surface water discharge due to operations at the Hanford site are summarized in Electronic Modeling Data Transmittal – Boundary Condition (Artificial Recharge) – 0002(EMDT-BC-0002, 2009). The data include the magnitudes and locations of operational discharges for the simulated time periods in the model. Locations of discharge include waste sites, ponds, sewer discharge, french drains, and documented unplanned releases for the entire operational period and projections of future discharges.

Figure 4.4 shows the locations of discharges listed in EMDT-BC-0002 and an illustration of how locations that overlap more than one model cell. The total discharge is distributed on an area weighted basis to all cells that intersect the footprint of the discharge location. The anthropogenic flux is added to the natural recharge component in order to establish the final total recharge flux used in the simulations. Discharges included in EMDT-BC-0002 have been attenuated to account for travel through the vadose zone. One specific discharge point that is key to this calculation is the Hanford 200 Area Treated Effluent Disposal Facility (TEDF) discharge, shown in Figure 4.4. In order to evaluate the possible impact that this facility may have on cleanup times, simulations will be conducted with and without this discharge simulated as anthropogenic recharge.

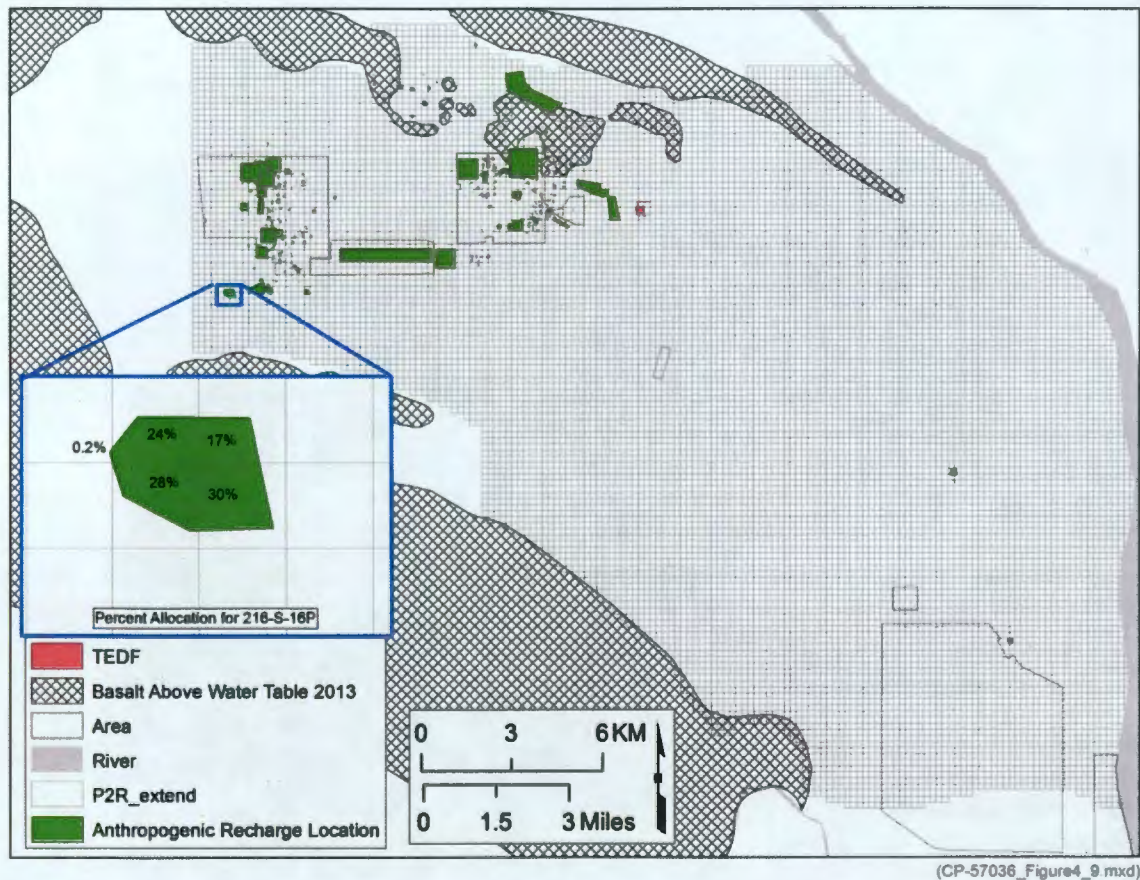


Figure 4.4 – Locations of anthropogenic recharge in the P2R Model.

4.5.1.2 Lower Boundary (Basalt)

The base of the numerical model (bottom of model layer 7) is simulated as a no flow boundary. The possibility of groundwater flux through the basalt as a possible source was considered. However, similarly to the TC & WM EIS model, the basalt surface is considered a no flow boundary.

4.5.1.3 Lateral Boundaries

Figure 4.1 shows the model extent and the various lateral boundary conditions included in the model. The boundaries include specified head boundaries, no flow boundaries, mountain front recharge, and river boundaries representing the Columbia River. Each of these is described in the following sections.

Specified Head Boundaries

There are four separate specified head groups defined in the model. They are labeled, the west, northeast, southwest, and Gable Gap groups. These represent boundaries where groundwater is expected to flow across. In each case the location was selected to coincide with a location where a groundwater monitoring well was stationed in order to assign a specified head at that position for the calibration simulations.. Figure 4.5 shows observed hydraulic head over time at each of these wells and the simulated values used for defining the boundary condition.

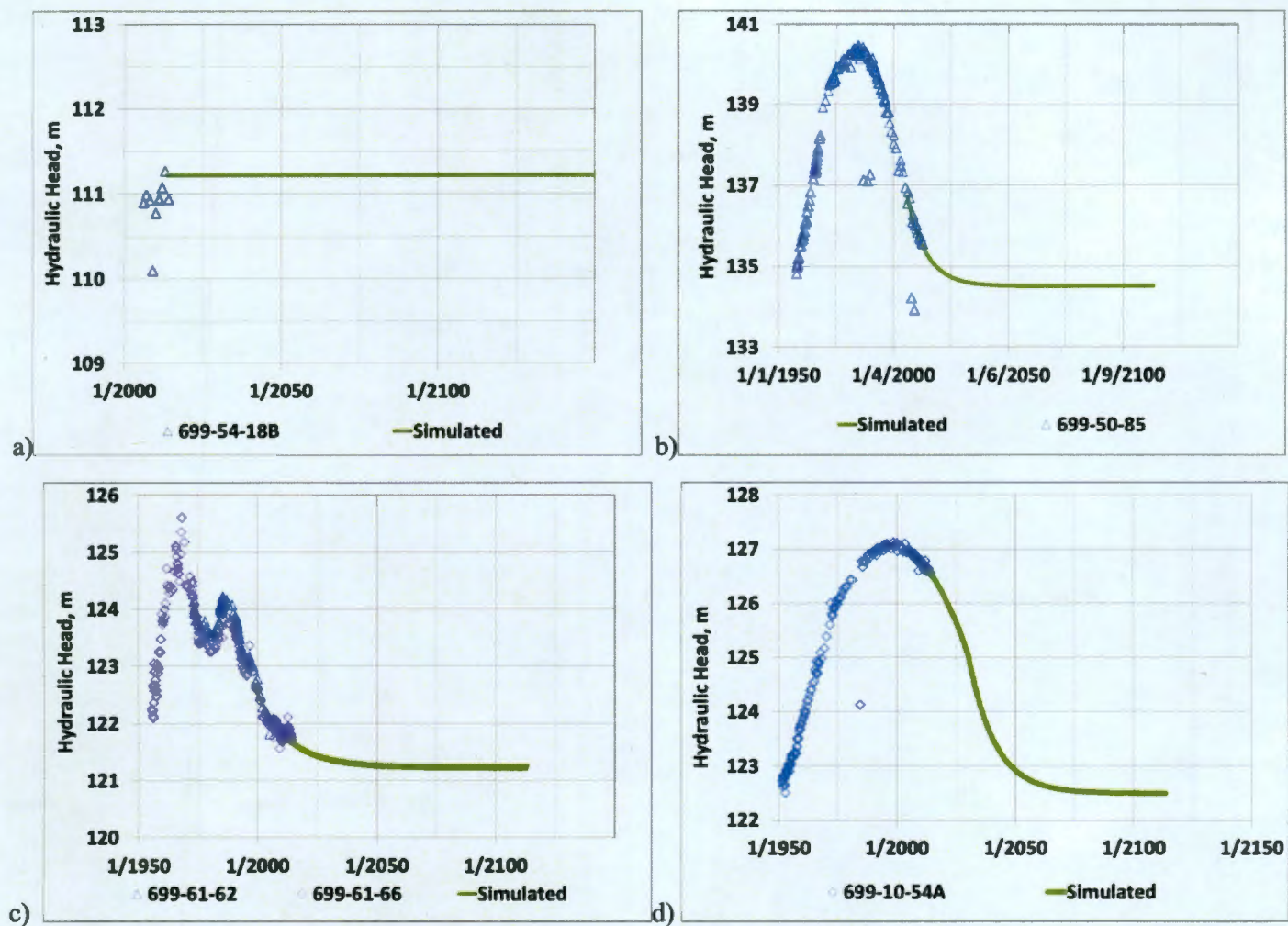


Figure 4.5 – Observed hydraulic head at wells used to define the specified head boundary conditions and the simulated time series for a) the eastern, b) western, c) Gable Gap, and d) southern boundaries.

No-flow (Upland) Boundaries

Where no designation is shown in Figure 4.2 along the lateral boundary is defined the model defaults to a no flow boundary. These represents locations where the basalt outcrops or in the case of the southernmost boundary of the model was modeled to move parallel to the flow of groundwater based on the sitewide contours presented as part of the 2013 Annual Groundwater Monitoring Report. The boundary was selected far enough to the south that any groundwater remedy is sufficient distance away from the boundary to affect the direction of flow at this location. If significant changes to the groundwater magnitude and direction at this location occur in the future, this boundary may need to be reconsidered. Also, based on this boundary selection any remedial option for consideration should not violate the assumption that the option is sufficiently away from the boundary not to affect significantly the direction of groundwater flow.

Mountain-front Inflow Boundaries

Previous modeling efforts simulating site wide flow have included the effects of mountain front inflow boundaries at several locations throughout the site including the Dry Creek and Cold Creek Valleys and the Rattlesnake Hills (PNNL-14753, Rev. 1 and DOE/EIS-0391). Figure 4.2 shows the location of these boundary conditions with respect to the P2R model domain. Mountain front recharge in the previous models was simulated using specified flux and general head boundary conditions for the TC & WM EIS models. The model input parameters selected to represent this FEP in each of the models were not based on direct measurement, which introduces a level of uncertainty to the input parameters used for their representation. A calibration process was used to determine the final values in each case. PNNL-14753, Rev.1 acknowledges that mountain front recharge is occurring at all basalt outcrops include those close to Gable mountain and basalt outcrops. However, the affect was not significant enough to justify there inclusion as a model boundary condition.

For the P2R model both the Cold Creek and Dry Creek valleys are largely outside the model domain. The effect of recharge from these locations is represented by specified head boundaries to the west and southwest of the model. In the model construction process recharge included in the model near basalt outcrops was shown to over predict saturated groundwater conditions where it is not observed and over predict hydraulic head at these locations. The coarseness of the model grid and saturated zone only formulation of MODFLOW caused these over predictions. To mitigate the over prediction in these locations no areal recharge was simulated within 300 meters of a basalt outcrop. This includes Rattlesnake hills. Therefore, mountain front recharge was considered but not explicitly simulated in the P2R model.

Columbia River Boundary

Columbia River stage data were available for the 300-Area gage that is part of the Automated Water Level Network (AWLN) at the Hanford site. Data were obtained from the Hanford Virtual Library for the period of record available from May 2006 to September 2012. A MODFLOW river package node was assigned to each location at the eastern edge of the model shown in Figure 4.2. River stage elevations at each location were assigned based on applying a gradient established by Thorne et. al. (2006) using hydraulic modeling of the Columbia River to determine the gradient. This method for establishing the river stage was utilized by previous modeling efforts at the site (PNNL-14753, Rev. 1 and DOE/EIS-0391). Figure 4.6 shows the period of record river stage from the gage data along with the values used for simulating the predictive flow. River depth for the simulation matched the value used in the TC & WM EIS model and river conductance was established as part of the model calibration.

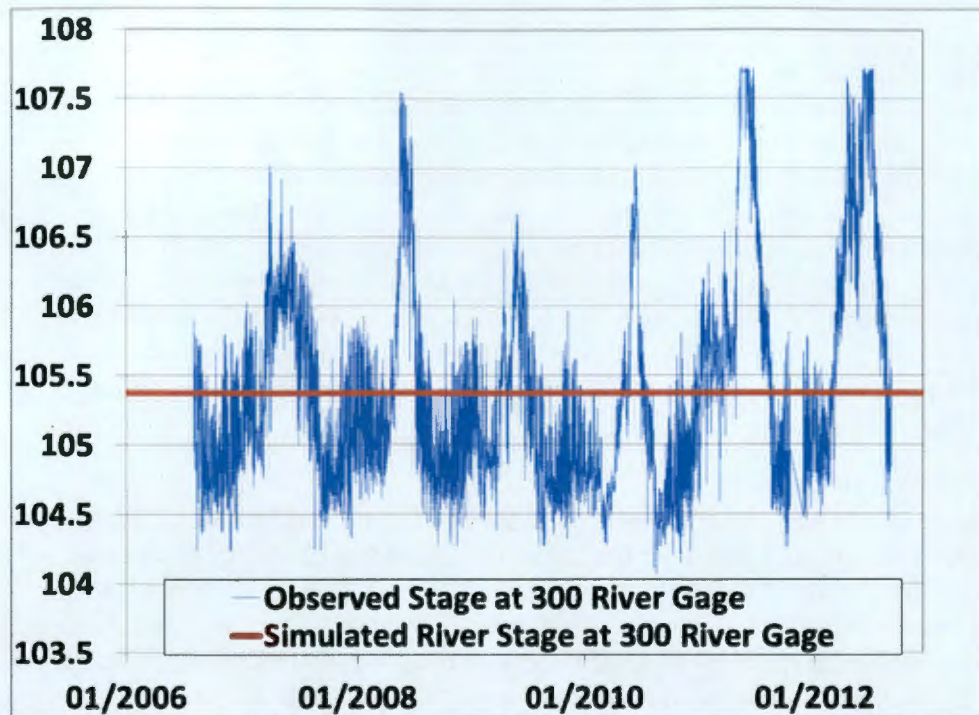


Figure 4.6 – Observed Columbia River stage and simulated river stage at the 300 Area river gage.

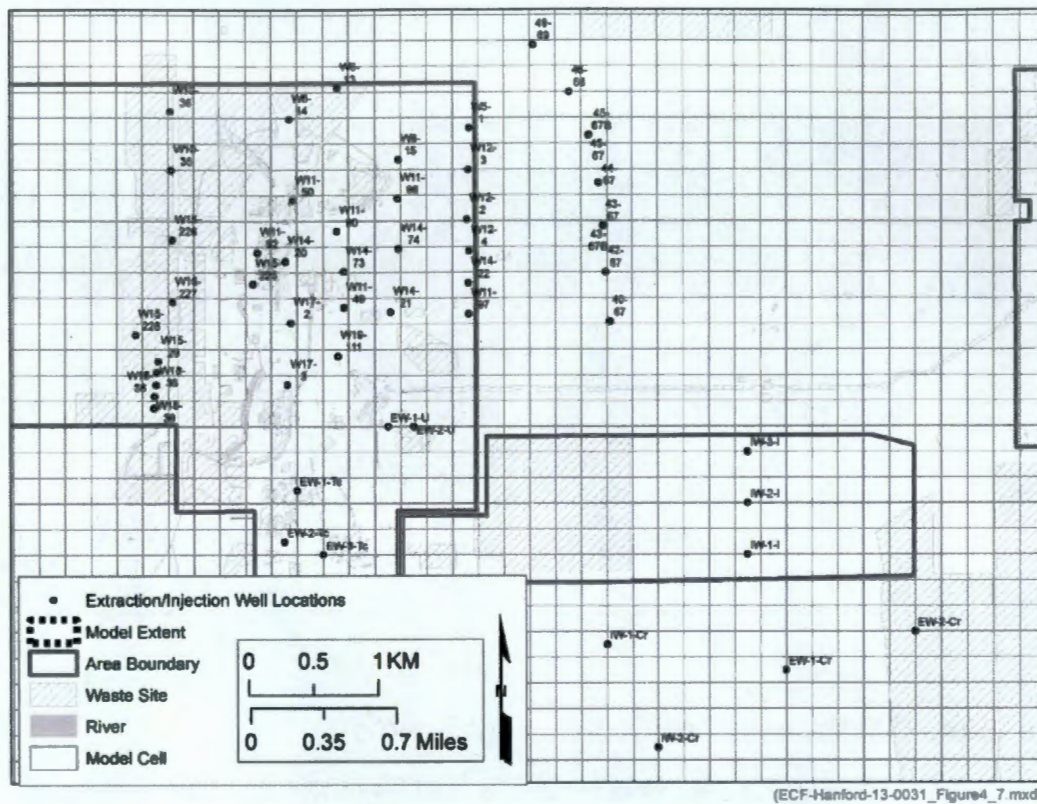
4.5.2 Pump-and-Treat (Extraction and Injections)

Pump-and-treat remediation systems have been developed at the Hanford site to aid in the cleanup effort. Within the P2R model domain several of these systems, associated with 200 West Area, exist within the model domain. Extraction and injection data for these pump-and-treat systems were gathered as part of developing the model. Table 4-3 shows the well names locations and rates in gallons per minute (gpm) for injection and extraction wells within the model domain for the first 100 years of the simulated time periods. No pumping was assumed to occur beyond 100 years. Data were compiled from various project scientists responsible for project work. Table 4-4 shows the various sources that were used to compile the pumping rates. At this time a database recording the pumping rates for remedial systems is not available and these values represent the most comprehensive list of extraction and injection rates for the wells listed in Table 4.2. Injection and extraction rates were input using the MODFLOW well package. In locations where the well screen intersected multiple layers of the numerical model, the flow was proportioned based on the relative transmissivity of the screened interval for that well. Figure 4.7 shows the location of pumping wells within the model domain.

Table 4-3 – Pumping rates (gpm) for wells within the model domain and active during the simulation time periods.

	01/01/2013	01/01/2014	01/01/2015	01/01/2022	01/01/2037	01/01/2038	01/01/2057
Well Name	12/31/2013	12/31/2014	12/31/2021	12/31/2036	12/31/2037	12/31/2056	01/01/3013
299-W10-35	125	107	100	100	75	0	0
299-W10-36	125	107	100	100	75	0	0
299-W11-49	-112	-90	-90	-90	-67	0	0
299-W11-50	-117	-80	-80	-80	-60	0	0
299-W11-90	-120	-90	-90	-90	-67	0	0
299-W11-92	-85	-85	-85	-85	-63	0	0
299-W11-96	-130	-127	-120	-120	-89	0	0
299-W11-97	0	-25	-100	-100	-75	0	0
299-W12-2	-125	-110	-110	-110	-82	0	0
299-W12-3	-125	-110	-110	-110	-82	0	0
299-W12-4	-110	-110	-110	-110	-82	0	0
299-W14-20	-120	-91	-95	-95	-71	0	0
299-W14-21	-130	-130	-130	-130	-97	0	0
299-W14-22	-32	-125	-125	-125	-93	0	0
299-W14-73	-110	-72	-50	-50	-37	0	0
299-W14-74	-130	-130	-130	-130	-97	0	0
299-W15-225	-75	-69	-50	-50	-37	0	0
299-W15-226	125	107	100	100	75	0	0
299-W15-227	125	107	100	100	75	0	0
299-W15-228	0	8	30	30	22	0	0
299-W15-29	119	111	100	100	75	0	0
299-W17-2	-110	-77	-70	-70	-52	0	0
299-W17-3	-110	-75	-60	-60	-45	0	0
299-W18-36	119	111	100	100	75	0	0
299-W18-37	119	111	100	100	75	0	0
299-W18-38	119	111	100	100	75	0	0
299-W18-39	119	111	100	100	75	0	0
299-W19-111	-25	-97	-90	-90	-67	0	0
299-W5-1	-32	-125	-125	-125	-93	0	0
299-W6-13	125	107	100	100	75	0	0
299-W6-14	125	107	100	100	75	0	0
299-W6-15	-25	-100	-100	-100	-75	0	0
699-40-67	105	90	90	90	67	0	0
699-42-67	130	130	130	130	97	0	0
699-43-67	0	25	100	100	75	0	0
699-43-67B	121	108	60	60	45	0	0

	01/01/2013	01/01/2014	01/01/2015	01/01/2022	01/01/2037	01/01/2038	01/01/2057
Well Name	12/31/2013	12/31/2014	12/31/2021	12/31/2036	12/31/2037	12/31/2056	01/01/3013
699-44-67	130	130	130	130	97	0	0
699-45-67	0	18	70	70	52	0	0
699-45-67B	18	70	70	70	52	0	0
699-46-68	28	110	110	110	82	0	0
699-49-69	28	110	110	110	82	0	0
IW-3-I	50	50	50	0	0	0	0
IW-2-Cr	75	75	75	75	75	75	0
IW-2-I	50	50	50	0	0	0	0
IW-1-I	50	50	50	0	0	0	0
EW-2-Cr	-75	-75	-75	-75	-75	-75	0
IW-1-Cr	75	75	75	75	75	75	0
EW-1-Cr	-75	-75	-75	-75	-75	-75	0
EW-1-Tc	-17	-17	-17	-17	0	0	0
EW-2-Tc	-37	-37	-37	-37	0	0	0
EW-3-Tc	-35	-35	-35	-35	0	0	0
EW-2-U	-75	-75	-75	-75	0	0	0
EW-1-U	-75	-75	-75	-75	0	0	0



(ECF-Hanford-13-0031_Figure4_7.mxd)

Figure 4.7 – Location of injection and extraction wells included in the P2R model.

4.6 Initial Hydraulic Head Distribution

The initial hydraulic head distribution was determined using a steady state stress period at the beginning of the simulation where boundary conditions assignments matched the first transient simulation period representing 1/1/2013.

4.7 Contaminant Initial Conditions

The initial contaminant distributions in the saturated zone were developed as part of ECF-Hanford-13-0030, *Initial Groundwater Plume Development to Support Fate and Transport Modeling for Remedial Investigation/Feasibility Studies of the 200-BP-5 and 200-PO-1 Groundwater Operable Units*. The results of this ECF provided the input files for simulations for the following contaminants:

- Hexavalent Chromium
- Cyanide
- Iodine-129
- Nitrate
- Strontium-90
- Technetium-99
- Tritium
- Uranium

Table 4-4 contains the initial mass (or activity for radionuclides) in the saturated zone for each of these contaminants as simulated in the model. There is a value representing a maximum or worst case scenario where the simulated value is based on the highest value and the average value that represents the expected condition of the aquifer based on a volume weighted average.

Table 4-4 – Mass/Activity for contaminants simulated in support of BP-5/PO-1 RI.

Contaminant	Units	Mass/Activity					
		Average Condition			Maximum Condition		
		Total	BP-5	PO-1	Total	BP-5	PO-1
Hexavalent Chromium	kg	2.6	2.6	0	5.2	5.2	0
Cyanide	kg	110	110	0	180	180	0
Nitrate	kg	1,130,000	760,000	360,000	1,500,000	1,100,000	400,000
Iodine-129	Ci	1.3	0.1	1.3	1.4	0.1	1.4
Strontium-90	Ci	7.5	7.3	0.3	25	25	0.4
Technetium-99	Ci	11	11	0.8	21	20	0.9
Tritium	Ci	12,000	9	12,000	13,000	12	13,000
Uranium	kg	450	410	40	1,400	1,300	53

4.8 Future Potential Vadose Zone Contaminant Source

Based on the available information presented in *Development of Source Terms for Inclusion in Fate and Transport Modeling for Remedial Investigation /Feasibility Studies of the 200-BP-5 and 200-PO-1 Groundwater Operable Units*, ECF-Hanford-13-0037, Rev. 0, two areas have been identified within these OUs where the continuing source from the vadose zone is likely to persist over the foreseeable future. The two areas are located within or around the Waste Management Area C (WMA C or C-Tank Farm area) and the B-complex (B-BX-BY Tank Farm area). The primary contaminants of concern that are likely to provide continuing source from the vadose zone are technetium-99, uranium, and nitrate. The recommended mass/activity from the ECF are presented in Table 4-5. These values were included in the simulations using the source/sink mixing package of MT3D.

Table 4-5 – Recommended continuing source fluxes for BP-5/PO-1 sensitivity scenario (ECF-Hanford-13-0037, Rev. 0).

Area	Contaminant	Units	Rate	Duration (years)
WMAC	TC99	Ci/Year	0.2	60
BYCRIB	TC99	Ci/Year	0.22	90
BYCRIB	Nitrate	kg/Year	8212.5	90
BBXB7	TC99	Ci/year	0.008	300
BBXB7	Uranium	kg/Year	3.8	300

4.9 Transport Properties

Table 4-6 contains transport properties that are aquifer properties that may or may not vary with HSU. Table 4-7 contains the constituent specific transport parameters used in the predictive modeling for 200-BP-5 Remedial Investigation (RI).

Table 4-6. Transport Properties

Property		Value	Basis
Effective Porosity	Hanford and Cold Creek	0.2	Approximate central value from DOE/RL-2007-28, Table D-2
	Ringold E, Taylor Flat, and A	0.15	
	Ringold Upper Mud	0.3	
Longitudinal Dispersivity		6.2 m	Schulze-Makuch (2005) using 200 m horizontal grid size
Transverse Dispersivity		1.2 m	20% of longitudinal dispersivity (DOE/RL-2008-56)
Molecular Diffusion Constant		0. m	Negligible term
Bulk Density	Hanford Formation	1.93 g/cm ³	PNNL-18564, Table 6.2
	Cold Creek	1.93 g/cm ³	PNNL-18564, Table 6.2
	Ringold	1.90 g/cm ³	PNNL-18564, Table 6.2

Table 4-7 - Constituent-specific Transport Parameter Values

Final COPCs	Kd (ml/g)	Half-life		Degradation Rate (1/day)	Reference for Kd
		(yr)	(day)		
Nitrate	0			No Decay	PNNL-18564, Table 6.9, Sandy Gravel sediment type
Strontium-90	12.	2.88×10^1	1.05×10^4	6.601×10^{-5}	PNNL-18564, Table 6.9, Sandy Gravel sediment type
Uranium	0.4	4.47×10^9	1.63×10^{12}	4.25×10^{-13}	PNNL-18564, Table 6.9, Sandy Gravel sediment type
Iodine-129	0.1	1.57×10^7	5.73×10^9	1.21×10^{-10}	PNNL-18564, Table 6.9, Sandy Gravel sediment type
Technetium-99	0	2.11×10^5	7.71×10^7	8.99×10^{-9}	PNNL-18564, Table 6.9, Sandy Gravel sediment type
Tritium	0	1.23×10^1	4.50×10^3	1.54×10^{-4}	PNNL-18564, Table 6.9, Sandy Gravel sediment type

Cyanide	0	No Decay	PNNL-18564, Table 6.9, Sandy Gravel sediment type
Sulfate	0	No Decay	PNNL-18564, Table 6.9, Sandy Gravel sediment type
Chromium	0	No Decay	PNNL-18564, Table 6.9, Sandy Gravel sediment type (mobile chromium is assumed to be in the hexavalent oxidation state)

Source: PNNL-18564, 2009, Selection and Traceability of Parameters to Support Hanford-Specific RESRAD Analysis Fiscal Year 2008 Status Report, Pacific Northwest National Laboratory, Richland, Washington.

5 Software Applications

Software used to perform this calculation are approved, managed, and used in compliance with the CH2M Hill Plateau Remediation Company (CHPRC) requirements of PRC-PRO-IRM-309, *Controlled Software Management*.

5.1 Exempt Software

Microsoft Excel®¹ is site-licensed software used as “flat file” spreadsheets that are wholly incorporated into this calculation and verified during the technical review of this report, and is therefore rated as exempt software (PRC-PRO-IRM-309, Section 1.3, Exemptions). Excel® spreadsheets were used to tabulate average monthly and long-term hydraulic head and river stage data for model input, and chart modeling results produced by MODFLOW-2000 and MT3DMS-MST.

5.2 Approved Software

MODFLOW-2000-MST and MT3D-MST are approved calculation software (CHPRC-00258, *MODFLOW and Related Codes Software Management Plan*). PEST, ArcGIS, and Groundwater Vistas are approved support software (CHPRC-00258).

5.2.1 MODFLOW-2000-MST

- Software Title: MODFLOW-2000-MST
- Software Version: CHPRC Build 6 (executable “mf2k-mst-chprc06dp.x”), double precision compilation
- Hanford Information System Inventory (HISI) Identification Number: 2517 (Safety Software, Level C)
- Authorized Workstation type and property number: Linux® Cluster, Tellus Modeling Platform

¹ Excel is a registered trademarks of Microsoft Corporation in the United States and other countries.

- Authorized User: T.J. Budge
- Software Vendor Documents:
 - Harbaugh et al. (2000), *MODFLOW-2000, the U.S. Geological Survey modular ground-water model -- User guide to modularization concepts and the Ground-Water Flow Process*
 - SSPA (2012a), *Documentation for: MODFLOW-2000-SSPA Build 006 Modifications and options added to MODFLOW-2000*
- CHPRC Software Control Documents:
 - CHPRC-00257, *MODFLOW and Related Codes Functional Requirements Document*
 - CHPRC-00258, *MODFLOW and Related Codes Software Management Plan*
 - CHPRC-00259, *MODFLOW and Related Codes Software Test Plan*
 - CHPRC-00260, *MODFLOW and Related Codes Requirements Traceability Matrix*
 - CHPRC-00261, *MODFLOW and Related Codes Acceptance Test Report*

5.2.2 MT3DMS-MST

- Software Title: MT3DMS-MST
- Software Version: CHPRC Build 6 (executable name "mt3d-mst-chprc06dp.x") , double precision compilation
- HISI Identification Number: 2518 [Support Software; CHPRC-00258]
- Authorized Workstation type and property number: Linux® Cluster, Tellus Modeling Platform
- Authorized User: T.J. Budge
- Software Vendor Documents:
 - Zheng and Wang (1999), *MT3DMS, A Modular Three-Dimensional Multi-Species Transport Model for Simulation of Advection, Dispersion and Chemical Reactions Of Contaminants in Groundwater Systems; Documentation and User's Guide*
 - SSPA (2012b), *Documentation for: MT3DMS-SSPA Build 006 Modifications and options added to MT3DMS*
- CHPRC Software Control Documents:
 - CHPRC-00257, *MODFLOW and Related Codes Functional Requirements Document*
 - CHPRC-00258, *MODFLOW and Related Codes Software Management Plan*
 - CHPRC-00259, *MODFLOW and Related Codes Software Test Plan*
 - CHPRC-00260, *MODFLOW and Related Codes Requirements Traceability Matrix*
 - CHPRC-00261, *MODFLOW and Related Codes Acceptance Test Report*

5.2.3 MODFLOW & Related Codes Support Software

CHPRC-00257 distinguishes calculational software from supporting software because these two groups of software are classified and graded differently. The basis for the difference is that calculational software, including MODFLOW-2000-MST and MT3DMS-MST, calculate results that will be used to support decision-making and as such, constitute safety software graded to level C. In contrast, supporting software includes graphical interfaces, visualization, and input preparation support but not calculation of results that directly support decision-making, and are therefore not rated as safety software. The support software items identified in CHPRC-00258 and used in this calculation were:

- **Groundwater Vistas®:** (*Guide to Using Groundwater Vistas* [Rumbaugh and Rumbaugh, 2007].) Used graphical tools for model input/output review. Groundwater Vistas™ was used in pre-processing some input files.
- **ArcGIS®²:** (*The ESRI Guide to GIS Analysis, Volume 1: Geographic Patterns and Relationships* [Mitchell, 1999].) Provided visualization tool for assessing simulated plume distributions, identifying extraction/injection well coordinates and mapping auxiliary data. ArcGIS® was used in pre- and post-processing simulation results.
- **PEST:** Pre- and post-processing utilities distributed with the support software PEST were used to facilitate efficient simulation execution.
- **ARANZ LeapFrog-Hydro®:** Used to assign model layers based on current interpretation of geologic units present within the model domain.
- **Microsoft Excel®:** Developed model input files and used to calculate average monthly and daily hydraulic head and river stage estimates.

5.3 Software Installation and Checkout

Safety Software (MODFLOW-2000-MST and MT3DMS-MST) was checked out and installed in accordance with procedures specified in CHPRC-00259. Executable files were obtained from the Software Owner, installation tests identified in CHPRC-00259 were performed and confirmed, and Software Installation and Checkout Forms were completed and approved for installations used to perform model runs reported in this calculation. A copy of the Software Installation and Checkout Forms for the authorized users and authorized workstations for software used that requires this documentation are provided in Attachment A to this ECF.

The Tellus Subsurface Modeling Platform is a Linux®³ cluster that is owned by CHPRC and operated by Mission Support Alliance was used to perform calculations with controlled software. This system consists of 16 Dell® PowerEdge® M610 blade servers, each with two Intel® Xeon® X5670 CPU's (6 cores/CPU, 2.93 GHz), 96GB of RAM, and 10Gbps Ethernet cards. The management node is a Dell® PowerEdge® M710 blade server with 2x Intel® Xeon® X5550 CPU's (4 cores/CPU, 2.7 GHz, 96 GB of RAM. As given by the Linux command "uname -a", the operating system details are:

```
Linux tellusmgmt.rl.gov 2.6.18-308.4.1.el5 #1 SMP Tue Apr 17
17:08:00 EDT 2012 x86_64 x86_64 x86_64 GNU/Linux
```

² ArcGIS® is a registered trademark of ESRI Corporation.

³ Linux® is a registered trademark of Linus Torvalds in the United States and other countries.

Calculations and analysis using support software identified above were performed on a laptop computer with U.S. DOE ID tag WF16209. This system is a Dell® Latitude®⁴ E6400 with a 2.26-GHz Intel® Core™ 2 Duo CPU E8200 processor and 3 GB of RAM loaded with the HLAN Windows® XP Image Version 3.0.1.0 operating system.

5.4 Statement of Valid Software Application

The preparers of this calculation attest that the software identified above, and used for the calculations described in this calculation, is appropriate for the application and used within the range of intended uses for which it was tested and accepted by CHPRC. Because MODFLOW-2000-MST and MT3DMS-MST are graded as Level C software, use of this software is logged in the HISI under the corresponding entries (Identification Numbers 2517 and 2518). These software items were used within the limitations identified in CHPRC-00257. Installations of the software are operating correctly, as demonstrated by installation testing performed on the Tellus Subsurface Modeling Platform and documented in the Software Installation and Checkout Form (Attachment A).

6 Calculation

Several sets of simulations were created to support the BP-5/PO-1 RI. Table 6-1 shows the scenarios that were evaluated by the simulations. For each set of simulation each constituent was simulated with the exception of the continuing source simulations which were only completed for Technetium-99, Nitrate, and Uranium. In total 44 simulations were executed as part of this calculation. Due to the large number, the majority of the output from these simulations will be included in an Attachment to the ECF. This section will describe the figures, charts and tables that are available for each of these simulations. A summary of the model results is presented in section 7.

Table 6-1. Scenarios developed to support the 200-BP-5/200-PO-1 RI/FS

Scenario	Description
Base Case	The base case scenario represents the expected behavior of the plume migration and will be used for assessing contaminant migration within the RI/FS.
TEDF Future Use	These simulations consider the effect of the TEDF facility on the plume migration. EMDT-BC-0002 provides the estimates of TEDF use beyond 2015 for this sensitivity.
Continuing Source	ECF-Hanford-13-0037, Rev. 0, was used to establish continued transport of contaminants from the vadose zone to the saturated zone. The rates used are discussed in Section 4.8.

6.1 Assessing Plume Migration for Existing Plumes

The simulation outputs from each of the simulations mentioned previously were processed to create a set of figures to illustrate the fate and transport of the simulated contaminants. The figures created include plan view contour maps at simulation time of 0, 25, 50, 125, 175, 300, 500, 800, and 1000 years, summary charts for the mean, 90th percentile, and maximum concentration for various regions of the model, and a table of concentrations over time for selected well locations in the model. An example of the figures shows results for the Iodine-129 simulation for average concentration initial conditions in

⁴ Dell® and Latitude® are registered trademarks of Dell, Inc.

Figure 6.1 and 6.2. Table 6-2 shows results from the nitrate simulation for average concentration initial conditions. The following sections describe the information that can be obtained from these figures. The figures for each of the 44 simulation conducted for this ECF are included in Attachment B.

6.1.1 Plan View Contours

Figure 6.1 shows plan view contour plots for the Iodine-129 plume after 25 years of simulation. Several aspects of the figure help identify the simulations. There is a title in the upper right hand corner that describes the scenario simulated and the time of year. In this case the simulation time is at 25 years. The title indicates that this simulation was for average concentration conditions, where no remediation action is considered for either BP-5 or PO-1 (e.g., No Action). The color ramp for the contours is designed that the first colored contour interval (light blue) represents concentrations between 0.5 and 1.0 times the cleanup level of 1.0 pCi/L for iodine-129 and the second interval (darker blue) represents concentrations above the cleanup level.

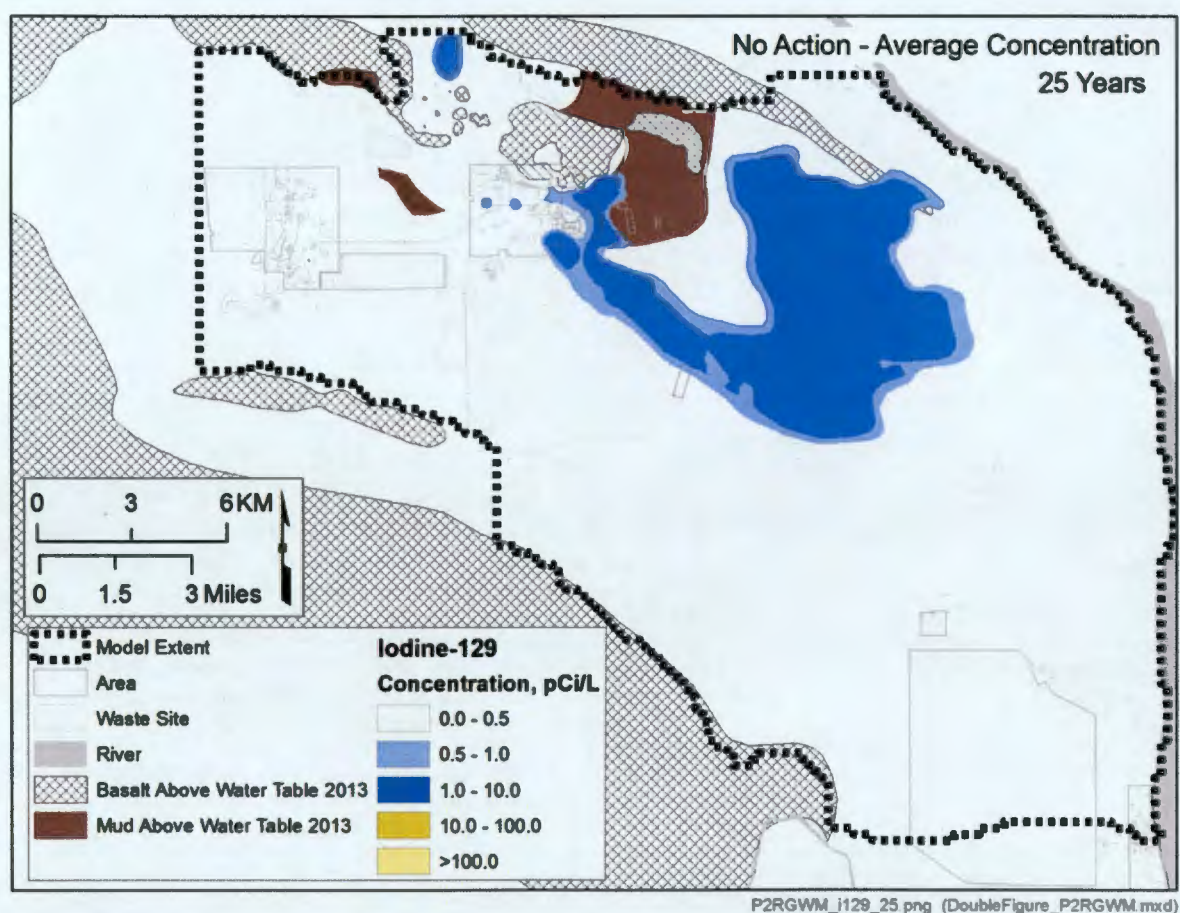


Figure 6.1 – Plan view contours of the iodine-129 plume at simulation time 25 years based on average concentration initial conditions.

6.1.2 Regional Summary

The charts shown in Figure 6.2 provide a statistical summary of the plume migration over several subregions of the model. The charts indicate the contaminant concentration on the ordinate axis and simulation time in years on the abscissa. Figure 6.2 a, b, and c show the mean, 90th percentile, and peak

concentration within the boundaries of the subregions indicated in the legend. The mean value represents an area weighted arithmetic mean concentration for all cells within the specified subregion. The 90th percentile is estimated by tabulating all estimated concentration values in a subregion, sorting the values, assigning a Weibull plotting position to determine rank, and selecting the concentration value corresponding to the 90th percentile value. The peak concentration is the concentration with the highest magnitude from any estimated concentration within a given subregion. When calculating the statistical values for mean and 90th percentile only numerical cells with simulated concentration values above 1/100th of the cleanup level were used in the calculation.

Figure 6.3 shows the spatial distribution of the subregions throughout the model domain. The subregions represent the boundary conditions in the model and the groundwater interest areas designated at the Hanford site. The boundaries can be used to assess any concentration exiting the model domain to estimate if it is possible that the concentration is above the cleanup level. The groundwater interest areas subregions provide concentrations within the interest area boundary over time in order to assess the relative effectiveness of treatment options. The charts can be used to estimate the time it takes for the contaminant concentrations to fall below the cleanup levels.

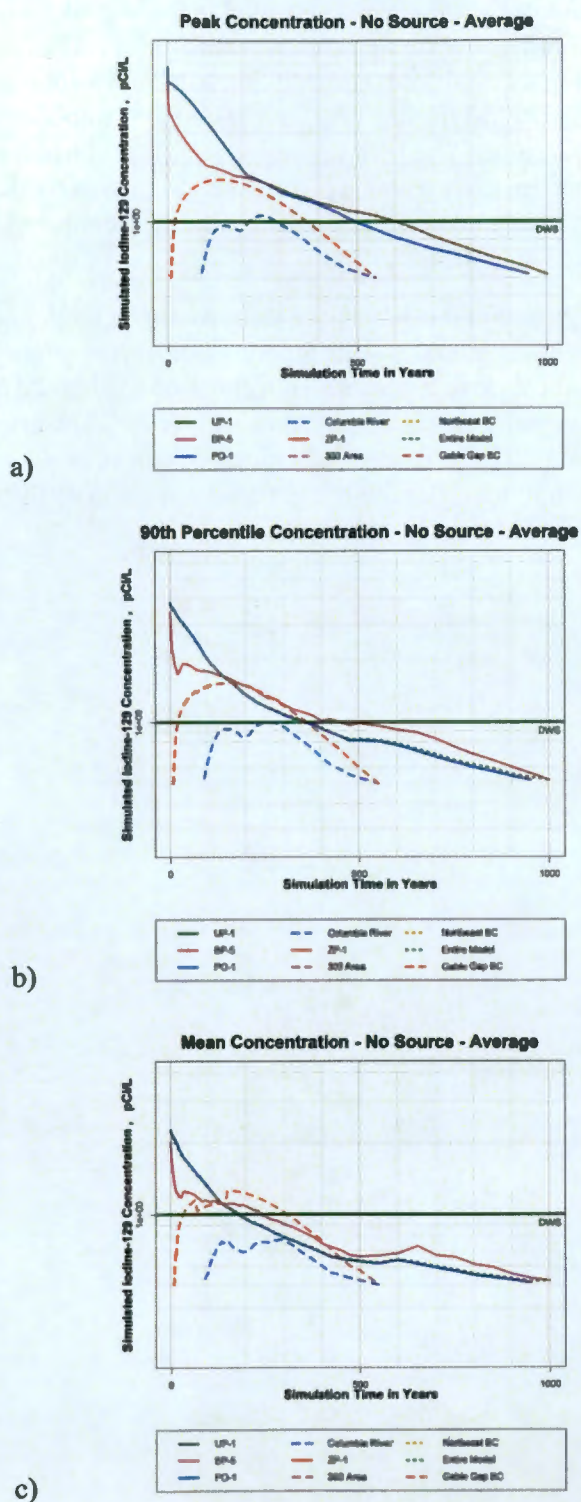


Figure 6.2 – Statistical summary of simulated concentration within subregions of the model domain for the iodine-129 plume for average concentration initial conditions.

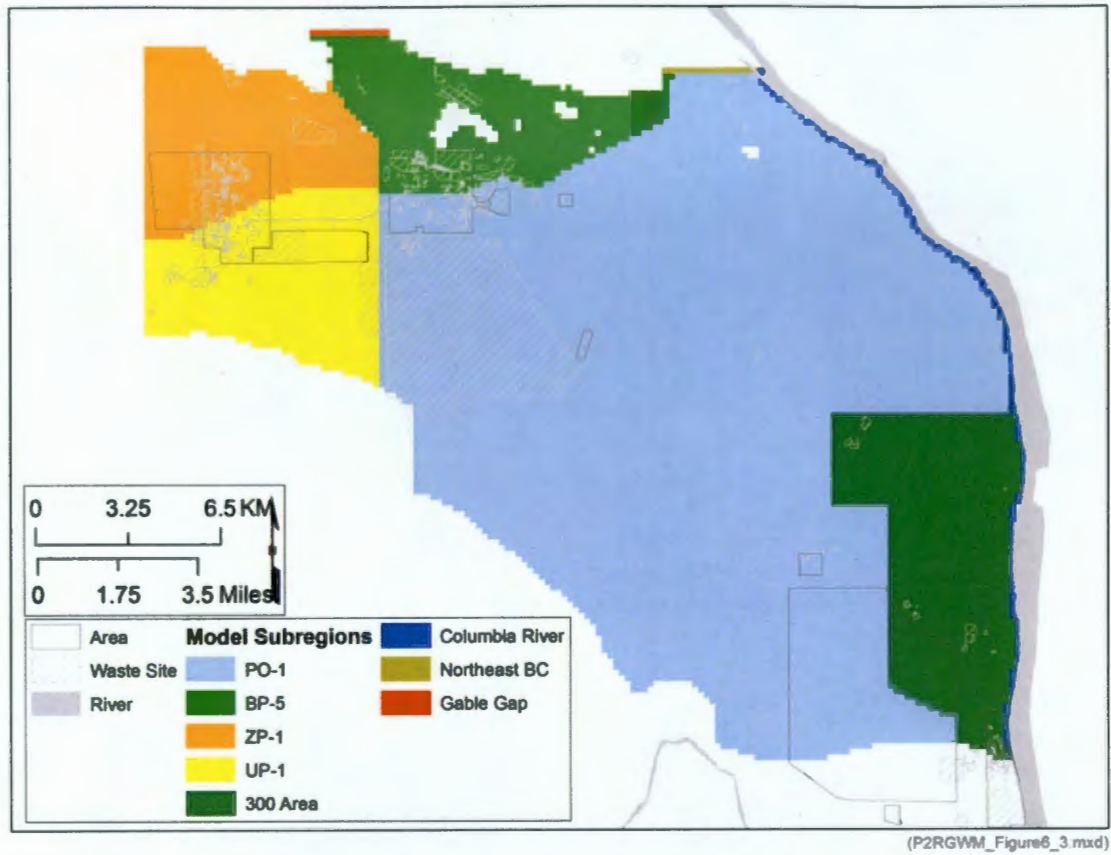


Figure 6.3 – Subregions used to summarize the fate and transport of contaminants over time.

6.1.3 Results at Well Locations

A summary of simulated results that correspond to the location of observation wells with BP-5 and PO-1 were created. Table 6-2 shows the tabulation of the results for nitrate with the average concentration initial condition. The results also provide the maximum concentration within the boundaries of BP-5 and PO-1. These values can be used to calculate EPC values to support the RI/FS. This type of table was only created for the base case simulation with average and maximum concentration conditions because these are the only simulations that will be used for EPC calculation.

Table 6-2 – Summary of simulated concentrations(µg/L) at selected well locations within the model domain for the Nitrate base case average concentration condition.

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
699-42-42B	200-PO-1	0.0	9519.5	7016.2	6153.4	5364.0	4486.7	3639.6	3025.4	2244.3	766.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-44	200-PO-1	0.0	5926.5	5881.4	5863.5	5218.8	4468.6	3736.6	3198.9	2497.4	1032.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	1424.0	19459.0	8777.9	6946.6	5474.0	4304.3	3380.7	2787.5	2090.4	826.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-1	200-PO-1	46621.7	11325.3	5476.9	3648.9	2708.4	2050.1	1569.1	1267.0	926.2	499.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-14	200-PO-1	64454.0	30031.5	17649.7	12796.8	9637.9	7272.3	5484.6	4433.0	3241.7	1342.7	940.2	676.7	481.2	0.0	0.0	0.0	0.0
299-E17-22	200-PO-1	44031.1	7128.8	2209.0	1038.9	627.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-23	200-PO-1	31953.7	6494.8	1095.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-25	200-PO-1	44004.1	11827.2	2031.2	696.1	589.6	496.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-16	200-PO-1	39104.3	7400.7	3141.6	2000.9	1496.6	1144.6	875.4	707.5	518.5	478.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-23	200-PO-1	41627.8	10452.9	4625.0	4161.4	3764.0	3262.0	2744.1	2358.6	1861.8	1014.6	912.2	766.7	620.7	490.3	0.0	0.0	0.0
299-E25-19	200-PO-1	5233.5	3004.5	543.4	0.0	0.0	0.0	0.0	0.0	0.0	586.0	566.0	480.1	0.0	0.0	0.0	0.0	0.0
299-E25-20	200-PO-1	4774.6	3151.4	530.2	0.0	0.0	0.0	0.0	0.0	0.0	517.3	506.6	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-3	200-PO-1	10859.9	3257.1	1029.3	722.4	582.8	474.8	0.0	0.0	0.0	452.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-36	200-PO-1	28734.9	9422.9	4630.6	4516.3	4083.1	3517.2	2948.0	2534.0	2011.9	1039.3	924.9	785.7	643.4	515.2	0.0	0.0	0.0
699-37-47A	200-PO-1	38640.1	14327.6	8668.6	5336.0	3283.6	2060.2	1338.7	979.3	802.9	589.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-20	200-PO-1	13516.9	1915.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-34	200-PO-1	4356.9	6820.8	1792.8	1689.0	1573.0	1456.2	1342.7	1256.0	1134.0	799.0	561.8	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-93	200-PO-1	11977.8	2066.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-4	200-PO-1	17807.0	7595.7	553.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	1424.0	19459.0	8777.9	6946.6	5474.0	4304.3	3380.7	2787.5	2090.4	826.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CMAx	200-PO-1	72712.0	38200.1	25353.5	18359.4	13285.8	9562.3	6871.5	5429.2	5248.7	6772.4	7475.4	7256.9	6568.5	5700.2	4815.3	4341.7	4530.6
299-E24-25	200-BP-5	33361.7	3396.0	1785.9	1600.0	1431.3	1286.0	1163.4	1080.7	979.1	777.6	685.4	625.6	568.2	506.4	0.0	0.0	0.0
299-E28-2	200-BP-5	63388.5	8225.8	5204.5	3417.9	2254.7	1527.9	1075.4	839.0	613.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-23	200-BP-5	65228.8	7795.8	4515.6	3394.8	3392.8	3385.2	3346.2	3289.1	3157.8	2498.0	1844.7	1365.7	1046.8	836.6	692.4	586.2	502.4
299-E28-24	200-BP-5	65039.4	7855.1	4567.3	3442.8	3473.9	3487.4	3461.0	3409.2	3279.7	2597.1	1911.6	1407.3	1071.6	851.2	700.7	591.0	505.0
299-E28-30	200-BP-5	387814.7	259513.2	201721.0	166302.9	150419.5	138925.3	127200.9	123228.2	119693.2	94703.3	68455.0	48174.9	33780.1	23832.0	16991.3	12265.3	8969.9
299-E29-54	200-BP-5	84374.3	24134.2	11829.5	8924.1	9234.5	9666.2	9965.7	10147.4	10327.4	11848.4	12100.9	11570.9	10690.0	9698.5	8723.2	7824.0	7023.5
299-E33-16	200-BP-5	574440.9	5056.6	2936.0	1785.6	1212.7	939.6	770.9	679.0	588.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-18	200-BP-5	434013.1	3356.9	1818.3	1088.0	729.3	558.7	454.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-1A	200-BP-5	328079.7	5772.3	3572.0	2209.5	1511.1	1175.1	966.8	853.1	740.2	525.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-2	200-BP-5	284191.9	5859.5	3653.1	2264.7	1549.7	1205.0	991.2	874.4	758.3	537.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-205	200-BP-5	360072.9	3227.7	1810.7	1097.9	743.1	573.8	469.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-26	200-BP-5	242428.1	912.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-3	200-BP-5	254624.5	6015.6	3772.4	2339.3	1600.4	1243.8	1022.4	901.5	781.3	552.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-31	200-BP-5	463112.9	4433.2	2593.8	1597.0	1093.7	854.4	706.9	626.8	547.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-32	200-BP-5	258835.9	1687.4	844.0	505.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E33-337	200-BP-5	270780.7	1333.5	503.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-339	200-BP-5	241333.8	1182.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-341	200-BP-5	249381.4	5796.7	3630.3	2258.7	1547.6	1204.1	991.0	874.6	758.8	537.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-342	200-BP-5	374735.2	5587.1	3423.9	2114.6	1446.1	1125.2	926.4	818.0	710.4	505.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-343	200-BP-5	390199.6	3150.6	1707.4	1022.0	684.9	524.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-345	200-BP-5	439277.7	3408.7	1851.4	1108.5	743.5	569.8	463.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-38	200-BP-5	344583.0	5529.7	3400.1	2105.2	1441.0	1121.7	923.9	816.0	708.9	504.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-4	200-BP-5	209364.7	6119.1	3865.9	2402.7	1644.6	1278.0	1050.4	925.9	802.1	566.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-41	200-BP-5	334070.1	2743.5	1463.4	872.9	582.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-42	200-BP-5	362647.3	3074.3	1728.0	1057.3	721.4	561.5	463.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-43	200-BP-5	215862.9	1110.8	477.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-44	200-BP-5	466417.9	4963.2	2946.0	1801.2	1226.1	951.4	781.5	689.0	597.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-47	200-BP-5	392802.3	2079.8	903.0	507.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-49	200-BP-5	217445.9	981.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-5	200-BP-5	322005.3	5539.3	3418.3	2119.8	1451.7	1130.2	930.9	822.2	714.3	507.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-7	200-BP-5	187088.2	6079.6	3853.5	2401.9	1645.7	1279.5	1052.0	927.7	803.9	567.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-9	200-BP-5	472315.4	5021.3	2990.2	1834.4	1252.0	974.1	802.3	708.7	616.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-49-57A	200-BP-5	76625.9	1518.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-50-56	200-BP-5	28854.0	26566.9	23011.9	19238.5	16335.2	14056.1	12241.3	11038.7	9563.7	6383.6	4531.8	3293.7	2406.8	1755.0	1273.7	919.4	660.3
699-50-59	200-BP-5	20410.7	2071.0	3331.0	2457.2	1478.6	799.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-55C	200-BP-5	109717.7	64210.0	57147.7	52228.1	47805.2	43693.7	39892.8	37073.4	33200.1	23001.9	16057.6	11346.1	8116.0	5872.4	4293.6	3169.0	2359.2
699-55-57	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-57-59	200-BP-5	0.0	13314.6	14340.1	13255.9	11550.3	11087.7	10313.0	9471.5	8068.6	4032.7	1800.1	765.0	0.0	0.0	0.0	0.0	0.0
699-60-60	200-BP-5	0.0	0.0	1001.1	2059.0	3197.8	4225.8	5004.3	5407.2	5653.2	4570.6	2747.9	1445.4	707.8	0.0	0.0	0.0	0.0
699-61-62	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	484.5	720.1	1347.8	1414.3	1254.0	945.3	624.0	0.0	0.0	0.0
699-53-47B	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-48A	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-54-49	200-BP-5	48449.2	39683.1	33021.9	27906.0	23568.8	19839.4	16654.7	14456.2	11667.1	5669.2	2795.2	1454.5	956.9	729.0	616.0	555.9	520.4
299-E26-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-27	200-BP-5	72278.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-10	200-BP-5	141199.1	641.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-6	200-BP-5	58412.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-7	200-BP-5	69509.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-9	200-BP-5	109815.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-29	200-BP-5	135530.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-34	200-BP-5	175288.0	1444.0	738.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-35	200-BP-5	211718.4	760.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-10	200-BP-5	22985.7	4400.1	500.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-12	200-BP-5	171647.2	1776.1	477.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E34-9	200-BP-5	247519.3	615.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-13	200-BP-5	15669.4	9465.7	851.0	547.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-14	200-BP-5	25708.6	9985.4	822.6	520.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-155	200-BP-5	13816.8	7203.4	713.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-21	200-BP-5	19608.0	7151.5	658.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-22	200-BP-5	9970.9	6111.2	584.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-23	200-BP-5	15808.2	8363.4	768.8	485.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-24	200-BP-5	24427.4	8053.5	700.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-4	200-BP-5	14539.9	9433.8	868.4	562.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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7 Results/Conclusions

Forty-four simulations were conducted as part of this ECF. The resulting figures, charts, and tables described in the previous section for each of the 44 simulations are included in Attachment 1. Table 7-1 developed to provide a summary of the relative differences in time to clean up in years for the various scenarios executed as part of this ECF. Table 7-1 one shows the value for time to cleanup based on 90th percentile concentration within the boundaries of 200-BP-5 and 200-PO-1 for the base case for simulations of both the average and maximum concentration conditions.

Table 7-1 – Comparison of time (years) for concentrations to fall below cleanup levels for base case simulations using the average and maximum concentration initial conditions.

Initial Condition	Contaminant	Peak		90th Percentile		Average	
		200-BP-5	200-PO-1	200-BP-5	200-PO-1	200-BP-5	200-PO-1
Average Condition	Hexavalent Chromium	0.2	0.0	0.2	0.0	0.2	0.0
	Cyanide	550	36	550	34	425	19
	Nitrate	1000	22	600	20	65	0
	Iodine-129	650	500	450	375	240	180
	Strontium-90	120	10	115	9	105	7
	Technetium-99	850	16	800	15	170	2
	Tritium	16	29	16	16	16	7
	Uranium	65	17	65	17	33	15
Maximum Condition	Hexavalent Chromium	0.8	0.0	0.8	0.0	0.2	0.0
	Cyanide	550	60	550	50	450	25
	Nitrate	1000	36	1000	29	350	14
	Iodine-129	750	550	600	400	325	200
	Strontium-90	180	26	180	25	150	19
	Technetium-99	1000	27	1000	25	450	16
	Tritium	21	37	21	36	21	34
	Uranium	950	105	950	100	950	80

7.1 Sources of Uncertainty

We have not attempted to quantify uncertainty in the fate and transport simulations. What follows is a qualitative discussion of sources of uncertainty in the simulations and how those uncertainties might influence the predictions of future contaminant distributions. Five sources of uncertainty are identified that can affect the fate and transport calculation results: (1) uncertainty in representing initial contaminant concentration distribution; (2) uncertainty caused by neglecting future contaminant sources; (3) conceptual model uncertainty in flow and transport modeling; (4) parameter uncertainty; and (5) uncertainty introduced by computational problems. The uncertainty discussion is based on the current

modeling objectives—using the model to evaluate future conditions under no-action scenario and to demonstrate whether a need for action exists. As the model is used in feasibility studies to compare remedial alternatives, more detail will be required to support these evaluations. Further refinements of the model are expected as the model is used for design of remedial alternatives. At that stage, a formal quantitative evaluation of model uncertainties will be presented.

7.1.1 Uncertainty in Initial Contaminant Distribution

The representation of initial distribution of contaminant concentrations is affected by the following uncertainties:

- Uncertainties in reported concentration measurements
- Errors in reported concentration measurements
- Variability in estimates of measurement detection limits
- Method used to assimilate non-detect measurements into the measurement data set
- Representativeness of individual samples with respect to the region surrounding the sample
- Biases and variability introduced by the kriging algorithm
- Choice and influence of control points
- Truncation of the kriging estimates below $\frac{1}{2}$ MCL
- Limited number of three-dimensional contaminant concentration measurements and modeling assumptions made to define the initial plumes in 3 dimensions

For most contaminants, uncertainty in contaminant measurements is probably a negligible factor when interpreting the results of fate and transport calculation. The exception may be iodine-129 for which large uncertainties exist even with some measurements above MCL. The probability of large measurement errors is typically very low due to stringent quality controls applied by various analytical laboratories. However, sometimes measurement errors do occur. For example, one 2009 measurement of technetium that has a very large value in the data we obtained from the HEIS database has been identified as in error. The same sample is now reported to be below detection limit in the HEIS database.

The method used to accommodate samples below detection limits is also a source of uncertainty. The reader should keep in mind that non-detect measurements are identified as such in the data received from HEIS. If the non-detect flag is set then the measurement value in the data are set to the non-detect value for non-radioactive constituents. Concentrations that are not measured by radioactive decay products are treated as if the contaminant level were one-half of the measurement detection limit, except for nitrate which is treated as if the contaminant level were at the detection limit. Measurements using decay products are treated as if the reported measurement is correct unless the reported value is negative. These rules create an intentional bias toward larger estimates in the vicinity of regions where contamination is detected compared to treating non-detects as zero concentration. It also introduces a similar bias in measurements far away from known regions of contamination. The distal bias contributes an unacceptable overestimation of contaminant concentration beyond the region. Therefore, the estimated contaminant concentrations are truncated at levels below $\frac{1}{2}$ MCL to eliminate this unacceptable overestimation.

Truncation greatly reduces uncertainty introduced by measurement detection limits and the treatment of samples below the detection limits. For contaminants with typical non-detect values larger than MCL the intentional bias towards larger estimates of contaminated regions is retained. If the detection limits are

below $\frac{1}{2}$ MCL then uncertainty due to the treatment of non-detect measurements is probably overwhelmed by the bias introduced by truncation of the contamination estimates at $\frac{1}{2}$ MCL.

Representativeness of fluid samples acquired from a wellbore with respect to defining contamination in the region of the wellbore is far too complex an issue to discuss in detail here. Contaminant concentrations may be effected by disturbances in the aquifer due to well emplacement. The actual placement of a monitoring well within the aquifer may induce local changes to the flow regime and migration of contaminants. Also, a larger proportion of the sample may come from high conductivity layers in the formation. This condition could introduce a bias in concentration if there are local variations in concentration due to contaminant migration pathways. Suffice it to say that representativeness of samples could be a source of large uncertainties in individual measurements and could even introduce consistent biases in a region.

Another component of the representativeness and comparability of samples is related to collection of samples at varying times. For establishing initial plume concentrations, a simple selection criterion was introduced. The selection criterion was to apply the 2008 sample data preferentially rather than averaging all the data acquired at a location. For locations that do not have 2008 sample data, the most recent measurement was used if it was after 2005. In all cases, multiple samples acquired during a given year were averaged. Note that the strategy of reducing temporal uncertainty is consistent with the assumption that individual measurement uncertainties are small. Given the scale and dynamics of contaminant migration the time based sampling strategy has probably reduced uncertainty due to when samples were acquired to negligible levels.

Developing initial plume configuration from limited spatial dataset also leads to uncertainty in initial concentration. The kriging based interpolation routine was introduced to reduce this uncertainty. The issue is how far a sample result can be extrapolated away from the wellbore or model cell containing the wellbore. Kriging uses a diminishing influence with distance as defined by the exponential variogram structure. Kriging reduces but cannot eliminate uncertainty due to sparse sampling as it does not represent the physics of the processes that caused contaminants to migrate in the subsurface. It is instead an interpolation algorithm. To reflect the influence of fluid flow direction on contaminant distribution shape, a bias in the kriging algorithm was introduced by making the variogram longer in the average direction of flow than in other directions and shortest perpendicular to this direction. The average ground water flow direction was determined to be consistent with contaminant contours within about 30 degrees of azimuth. It was kept constant within each of the eastern and western portions of the Central Plateau model domain. Thus it only approximates flow direction at the scale of individual contaminant plume, sometimes quite poorly. A particular problem with using kriging to define contaminant distributions is that while flow is in a particular direction, kriging is symmetric with respect to the measurement point (i.e., the influence is the same in the direction of flow as it is in the opposite direction). One of the reasons for using control points was to reduce the influence of this limitation.

Control points allow the imposition of the analyst's subjective bias into the interpolation. Control points were used to accomplish the following four goals:

- Overcome the directionality problem described above.
- Connect regions of large concentration that were shown connected in the plume maps presented in the 2008 Hanford site groundwater annual report.
- Force very small regions of contamination above MCL (often few single cell blocks in the finite difference grid) to be represented as above MCL.

- Define contaminant plumes that have been inferred by limited measurements and knowledge of distributions or process knowledge as represented in the 2008 ground water report contaminant contours.

Control points introduce bias and uncertainty because their placement and interpretation of their influence is subjective. They are mainly used to apply professional judgment where insufficient data exist to fully describe site conditions. The net effect of control points is to reduce bias and uncertainty while defining plume configurations that are consistent with the 2008 groundwater annual report.

As with the introduction of control points, truncation of the plume estimates at $\frac{1}{2}$ MCL reduces the overall bias and uncertainty in the contaminant distribution but also introduces its own bias; where measurements do not exist, concentrations are set to zero. Truncation does not affect regions of large contaminant concentrations, but does result in a probable underestimate of total contaminant mass to avoid a much larger overestimate than would occur if truncation were not used.

There are far more contaminant measurements that are representative of near water table contaminant concentration than there are measurements representative of deep conditions. Measurements representative of the upper aquifer were used to define a single contaminant distribution that was then applied based on the discussion in ECF-Hanford-13-0030, Rev. 0. This may introduce bias in that the larger number of measurements near the surface dominates the estimates so that estimated contamination near the water table is propagated to greater depth. It is expected that this results in an overestimate of total contaminant mass. By assuming no contamination exists in layers 6 and 7 obviously biases the contaminant estimates in these layers in a non-conservative fashion, but this is supported by the absence of observed concentrations in the deeper parts of the groundwater aquifers.

The review of transport results presented in Attachment B indicates that the bias toward deep contamination caused by applying the kriged concentrations throughout the depth of the aquifer has introduced contaminants into low permeability HSUs or into locations where advective transport is stagnant. Contamination that enters these locations prolong the time to clean up calculated by the model in some cases where inspection of the plume shows the majority of the plume area is below the cleanup level. Contaminants move in these units more slowly than in the higher, more permeable, units. There is a large uncertainty with regard to contamination of deeper HSUs, and hence the representativeness of the slow movement of many plumes.

7.1.2 Uncertainty of Future Contribution from Vadose Contaminant Sources to Groundwater

The current analysis includes an estimate from the vadose zone for only uranium, nitrate, and technetium-99. Other contaminant estimates are limited to the estimation of the effects of current ground water contamination on future ground water contamination and the resultant risk to human health and the environment due to that contribution. The influence of future movement of contaminant presently in the vadose zone down to the saturated aquifer is outside the scope of this analysis and, therefore, the magnitude and timing of any future, or continuing contaminant contributions from this source were accounted for based on ECF-Hanford-13-0037, Rev. 0. Not all of the observed groundwater contaminant plumes in 200-UP-1 or 200-BP-5 Groundwater OUs are associated with continuing vadose source contributions. Some plumes do underlie locations of historical releases to ground that may exhibit continuing vadose contribution to groundwater contamination.

The evaluation and remediation of secondary contaminant sources within the vadose zone falls under the responsibility of the specific source OU(s). The major source of uncertainty within the scope of the analysis is due to possible non-linear influences on fate and transport. The conceptual model for transport of current contamination assumes that the important processes are linear; that is, changes in magnitude of

contamination propagate as changes in magnitude only; not as changes in how the processes work. For small concentrations this is a good assumption, it is doubtful that additional discharge from the vadose zone to the aquifer would impact the validity of the linearity assumption. Continuing contributions from vadose zone sources, however, could affect the overall magnitude of contaminant mass (as resulting concentration) in groundwater as well as the longevity of the high concentration portions of groundwater plumes.

7.1.3 Conceptual Model Uncertainty

It is often argued that conceptual model uncertainty is usually the dominant form of uncertainty in a modeling exercise. That is probably true for this model as well. One important source of uncertainty is the assumption that planned use of the Central Plateau will be accurate for the next one thousand years, roughly twenty times the time period that the Hanford facility has been maintained by the federal government to date. Changes in use of the plateau could alter the current artificial and natural recharge estimates in the model and thus impact the ground water flow velocities. The few after-the-fact audits of long term predictions that have been conducted have indicated that assumptions of future use are typically (if not invariably) the major cause of prediction error. Such uncertainty can lead in either conservative or non-conservative directions with equal likelihood. The impact of conceptual model related uncertainties can be investigated through sensitivity analyses.

Another important source of uncertainty is the assumption of spatially invariant hydraulic properties of the HSUs. The fluvial environments that lead to deposition of most of the aquifer are associated with heterogeneous structures, especially for the Hanford and Cold Creek units. Local variations in properties can cause local regions of relatively large flow rates and hence faster transport of contaminants. These can be significant as evidenced by the experience obtained from calibrating the model. During the calibration, the Cold Creek unit near the 200-East Area was found to be more permeable than a representative value would allow. The hydrologic unit definition of this portion of the Cold Creek unit was changed to Hanford formation to provide a more accurate reflection of the very permeable coarse grain nature of this portion of the Cold Creek unit. This region was identified because it was very important to the flow calibration. There are probably other smaller regions that had less impact on the hydraulic calibration but still could have a strong but more localized influence on flows.

A source of uncertainty in the transport predictions derives from the assumption of constant effective porosity value for a given HSU. The effective porosity is used in converting water mass flux calculated by MODFLOW to groundwater velocity used in MT3DMS for fate and transport calculations. Heterogeneity in the form of lenses, bar structures, and over bank deposits are common at a scale below the 200 m by 200 m grid size of the P2R model and could lead to varying effective porosity values and groundwater velocities. Furthermore, some of these features can create preferential pathways and lead to faster contaminant movement locally than predicted by the current model.

The conceptual model and parameterization of boundary conditions has a major influence on ground water flow and hence transport of contaminants. Representing the Gable Gap along the northern border of the model with specified heads is uncertain because the values have to be predicted from past trends. There are two major sources of uncertainty that influence the importance of the gap. The first is the uncertainty of how much flow is entering the model domain from the western boundary and through leakage upward from the basalt. Of these, flux from the western boundary dominates. The values obtained from calibration of observed groundwater hydraulic head were used for these terms and predicted into the future as discussed in Section 4.5.1.3. The second source of uncertainty is non-equilibrium storage in the aquifer. The Central Plateau is not in equilibrium with respect to inflow and outflow. The Central Plateau unconfined aquifer still exhibits more outflow than inflow because of the remaining fraction of the tremendous buildup of stored water in the aquifer during the operational period of the Hanford site. The

aquifer is still attenuating this build up that ended with termination of production activities at the Hanford site in 1989.

Fluid flow and hence transport is extremely sensitive to the interpretation of geology in the entire portion of the model east and southeast of the 200-East Area. This region is complex geologically and there is not a one to one correspondence between geologic formation and proper hydraulic representation. Strict reliance on geologic characterization was found to be incorrect. There may be almost as much variation of hydraulic conductivity within the Hanford formation and within the Cold Creek unit as there is between representative values for these hydro-stratigraphic units. To create a model that matched historic head data, interpretation of some drilling logs had to be re-examined, and many of the logs that were re-examined could be, and needed to be, interpreted differently than had been done previously. The conceptual model of hydrostratigraphy was influenced by historic contaminant plume interpretations that indicate the presence of a large conductive channel from just south of the 200-East Area toward the southeast of the P2R groundwater model domain. The hydraulic head data strongly correlates with this interpretation. There is, however, little geologic data from well log interpretation to corroborate this interpretation. While there is enough evidence to support a highly conductive channel, there is insufficient evidence to accurately define its shape and size. The uncertainty implies that there is insufficient evidence to provide good constraint of the velocity of groundwater flow in the channel. Potentially, examination of historic plume movement could help constrain flow velocities in the channel, but this has not been done.

7.1.4 Hydraulic Parameter Value Uncertainty

We have discussed aspects of conceptualization of HSUs as homogeneous features with effective single valued properties. The present discussion focuses on the selection of the effective values. Hydraulic parameters are; hydraulic conductivity, specific storage, and specific yield. Hydraulic conductivity values were established through calibration. The sensitivity ensured that only a narrow range of effective hydraulic conductivity of the Hanford formation would result in a good match. However because the fluid flux going through the channel is uncertain and the size of the channel is uncertain, the representativeness of the effective parameter for the hydraulic conductivity of the Hanford formation is also uncertain. In terms of transport velocity uncertainty, the uncertainty in a value of the hydraulic conductivity for the Hanford unit is relatively unimportant compared to the fluid mass flux uncertainty and uncertainty in the size of the channel.

The existence of a channel, as indicated by maps of historic contaminant distributions, indicates that there is a significant difference between the Hanford formation hydraulic conductivity and the effective hydraulic conductivity of the Cold Creek unit as documented in CP-57037, Rev. 0. The calibration resulted in an effective hydraulic conductivity of 108 m/day for the Cold Creek unit and 17000 m/day for the Hanford formation. It is expected that, in terms of the most important aspects, contaminant transport is not sensitive to Cold Creek hydraulic conductivity.

The effective values for hydraulic conductivity of the Ringold A and Ringold E units were selected in the calibration by matching the hydrograph of well 299-W12-1 during 1976 during calibration of the CPGW model and held consistent for this model calculation. This was done after selection of values for the Hanford unit and the Cold Creek unit. It is expected that the effective values are less well constrained than for the Hanford formation in the channel but much better than for the Cold Creek unit. The relative hydraulic conductivity between the Ringold A and Ringold E units are probably not well constrained and are important to transport uncertainty.

The calibration was insensitive to changes in the conductivity of the Ringold Mud unit. The Ringold Mud may act as a much greater barrier to flow into the Ringold A unit than is currently simulated. It is unlikely that would have much influence on transport in the 200-PO-1 and 200-BP-5 Groundwater OUs, but might

have a nonconservative impact on transport from the 200-UP-1 Groundwater OU to the 200-PO-1 Groundwater OU.

7.1.5 Uncertainty in Transport Parameters

As advection is the primary transport mechanism in the current modeling study, the transport parameters of interest are primarily effective porosity, bulk density, and K_d . These parameters are used in to determine the retardation factor that is applied to various COPCs. Because of lack of available information on spatial variability of these parameters, only best estimate values are considered in the modeling study.

The effective porosity and bulk density values applied in the transport model is representative of the sandy gravel sediment type of the Hanford Formation and the Ringold Formation (PNNL-18564). Although HSUs are composed of sediment layers of varying grain sizes (from gravel to mud size), but since the transport of contaminants is expected to preferentially occur along the coarser grained, higher hydraulic conductivity portion of the aquifer, applying the sandy gravel sediment property to the HSUs is deemed adequate. Furthermore, because of the long transport distances modeled, averaging of the properties over large rock volumes is reasonable as it leads to reduced uncertainty range.

The K_d of the contaminants is generally highly variable and depends primarily on the available sorption sites on the sorbent (function of surface area), dissolved concentration of contaminant, and chemical parameters such as pH, partial pressure of CO_2 , etc. Each of these parameters can vary over time and space and effect the K_d of the contaminant and thereby the uncertainty in its estimate. Because of the large transport distances considered and the coarse discretization of the model grid, the best-estimate approach for K_d is considered. The K_d values for COPCs reported for the uncontaminated sandy gravel sediment type is used in the model to be consistent with the effective porosity and bulk density estimates. In almost all cases, the K_d value estimation is based on the assumption of dilute concentrations in groundwater that interacts with the sandy gravel sediments are largely uncontaminated.

7.1.6 Summary of Uncertainty in Fate and Transport Simulations

The major source of uncertainty is likely the vertical distribution of the initial contamination distributions. Other important sources of uncertainty are flow into the model from the western subsurface streams, the size of the southeast channel, the choice of appropriate values for the distribution constants, effective porosity, and hydraulic conductivity of various HSUs, and the future use of the Central Plateau.

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Attachment A

**Software Installation and Checkout Forms for Approved Software
Installations**

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CHPRC SOFTWARE INSTALLATION AND CHECKOUT FORM

Software Owner Instructions:

Complete Fields 1-13, then run test cases in Field 14. Compare test case results listed in Field 15 to corresponding Test Report outputs. If results are the same, sign and date Field 19. If not, resolve differences and repeat above steps.

Software Subject Matter Expert Instructions:

Assign test personnel. Approve the installation of the code by signing and dating Field 21, then maintain form as part of the software support documentation.

GENERAL INFORMATION:1. Software Name: MODFLOW & Related CodesSoftware Version No.: Bld 6**EXECUTABLE INFORMATION:**

2. Executable Name (include path):

MD5 sums of executable files tested:

c2d687beee9d58dc615995ce8220d9ea	/mf2k-chprc06sp.x
e296d1c03769a966f529b2480bd17c26	/mf2k-chprc06dp.x
ae88adlee47b2a268716d9c13394b72a	/mf2k-mst-chprc06sp.x
80429a2d296461a6b69425b0f9e25077	/mf2k-mst-chprc06dp.x
69cc646caea7dba83b2eb44a9fafed8d	/mt3d-mst-chprc06sp.x
4795224002dba418ebe47aa507fcac42	/mt3d-mst-chprc06dp.x

3. Executable Size (bytes): Uniquely identified by MD5 signatures listed above.**COMPILATION INFORMATION:**

4. Hardware System (i.e., property number or ID):

WD56054 (PHNL Property System); RANSAC Linux Cluster

5. Operating System (include version number):

Red Hat Enterprise Linux WS 2 (Taroon Update 7)**INSTALLATION AND CHECKOUT INFORMATION:**

6. Hardware System (i.e., property number or ID):

Tellus Modeling Platform

7. Operating System (include version number):

Linux
2.6.18-208.4.1.el5 #1 SMP Tue Apr 17 17:08:00 EDT 2012 x86_64 x86_64 x86_64 GNU/Linux

8. Open Problem Report? ☒ No ☐ Yes PR/CR No. **TEST CASE INFORMATION:**

9. Directory/Path:

10. Procedure(s):

CHPRC-00259 Rev 2, MODFLOW and Related Codes Software Test Plan

11. Libraries:

N/A (static linking)

12. Input Files:


Test suite per CHPRC-00259 Rev. 2 installed in

13. Output Files:

Test results in
Results summarized in log file run-install-tests-all-nodes.log

14. Test Cases:

MF-ITC-1 (both standard and MST versions of MODFLOW); single & double precision versions
MT-ITC-1 run single & double precision versions

CHPRC SOFTWARE INSTALLATION AND CHECKOUT FORM (continued)		
1. Software Name: <u>MODFLOW & Related Codes</u>		Software Version No.: <u>Bld 6</u>
15. Test Case Results:		
All tests passed, on all Tellus compute nodes (compute-0-0 through compute-0-15 and tellusgmt)		
16. Test Performed By: <u>WE Nichols</u>		
17. Test Results: <input checked="" type="radio"/> Satisfactory, Accepted for Use <input type="radio"/> Unsatisfactory		
18. Disposition (include HISI update):		
Accepted: installation added to HISI entries #2517 (MODFLOW) and #2518 (MT2DMS)		
All Tellus Modeling Platform users are authorized, including:		
<div style="margin-left: 20px;"> AH Aly TJ Budge WJ McMahon WE Nichols S Mehta </div>		
Prepared By:		
19.  <small>digitally signed by WE Nichols, cn=WE Nichols, o=CHPRC</small>	<u>WE Nichols</u>	Date
Software Owner (Signature)	Print	
20. Test Personnel:		
<div style="margin-left: 20px;">Sign</div>	<u>WE Nichols</u>	Date
Sign	Print	
Sign	Print	
Sign	Print	
Approved By:		
21. _____	<u>M/R (Software Management Plan)</u>	Date
Software SME (Signature)	Print	

Attachment B

Detailed Figures for Numerical Simulation Results for ECF-Hanford-13-0031

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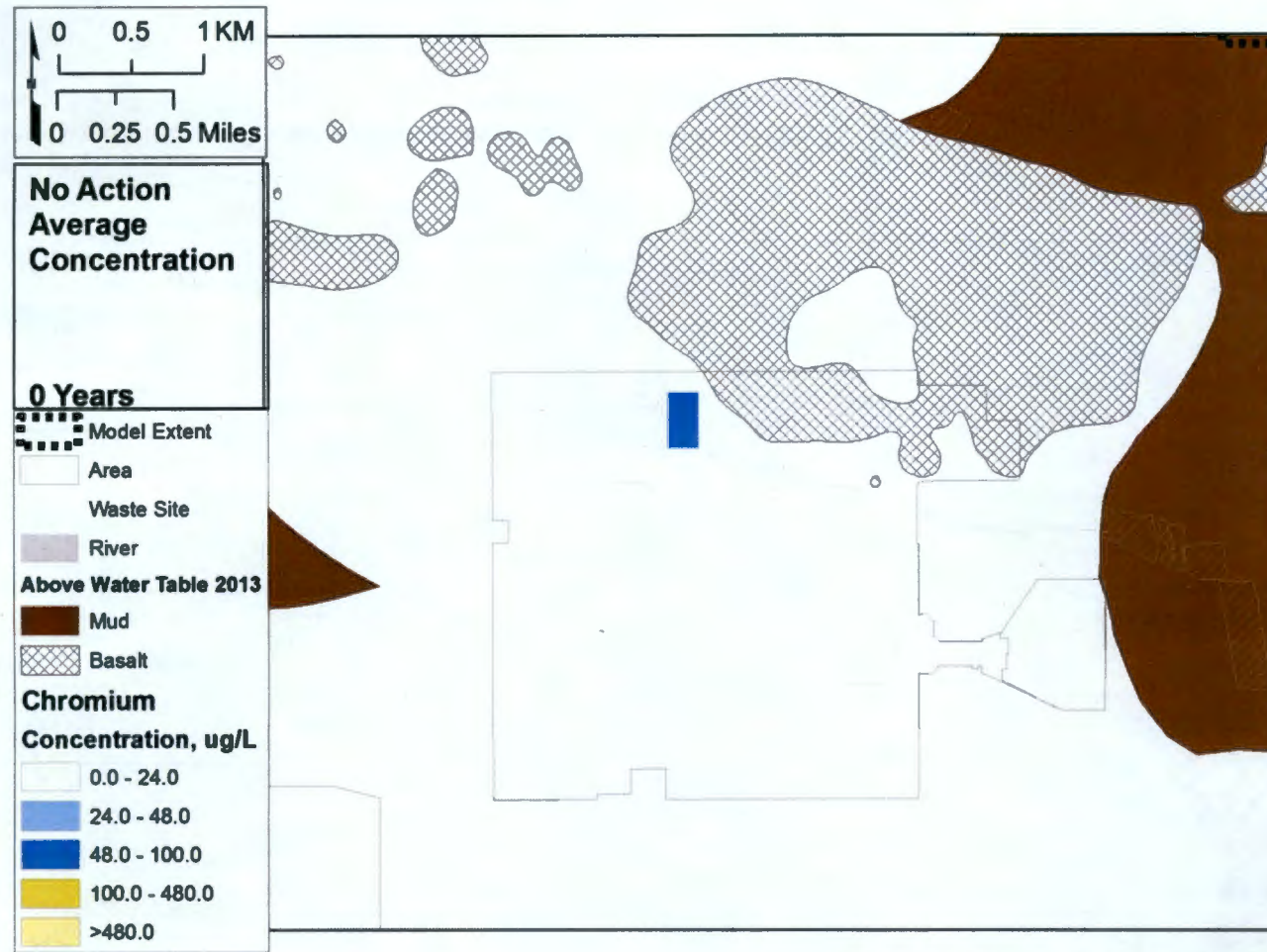
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Figure B-1 - Plan view contours of the hexavalent chromium plume at simulation time 0 years based on the base case simulation using average concentration initial conditions

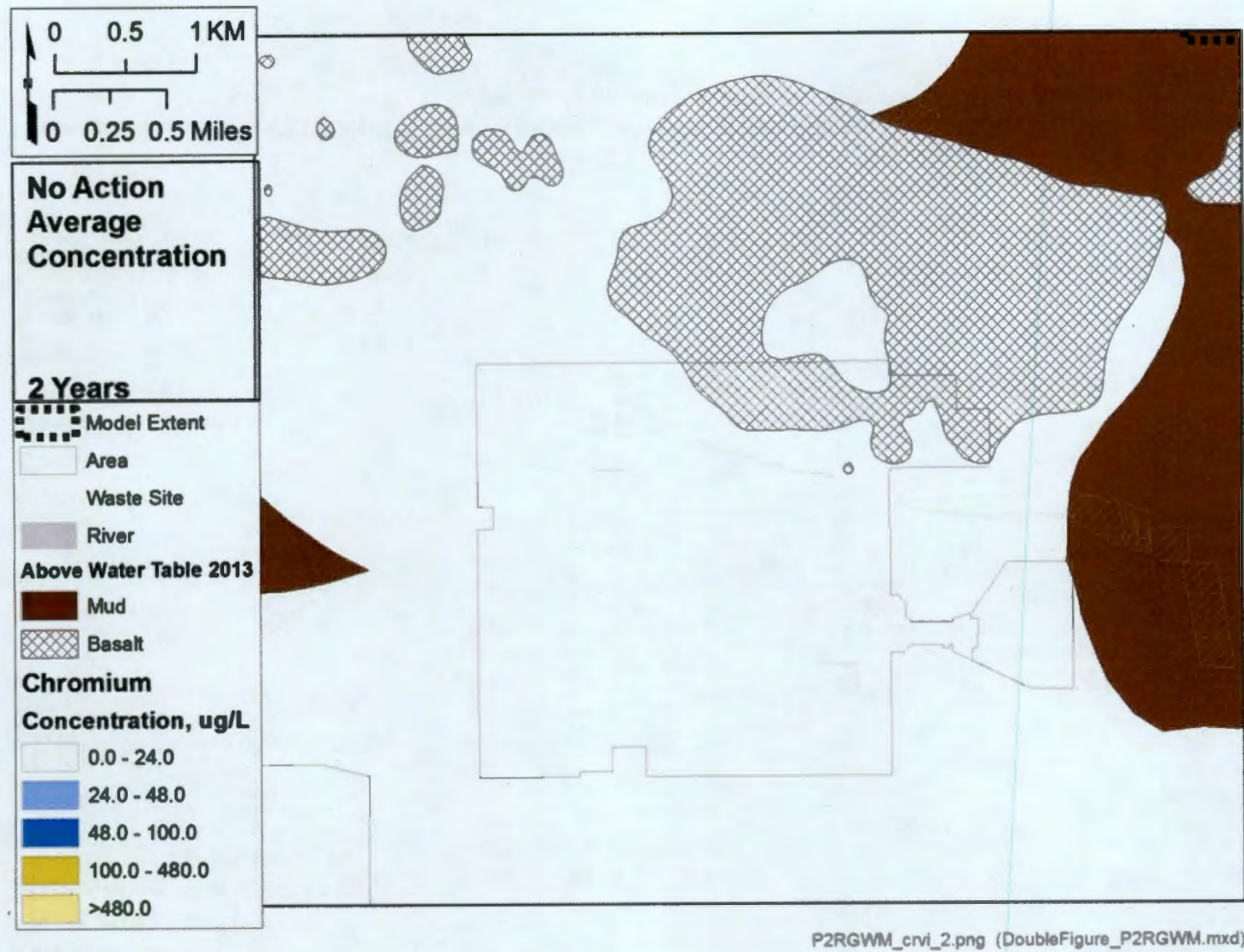
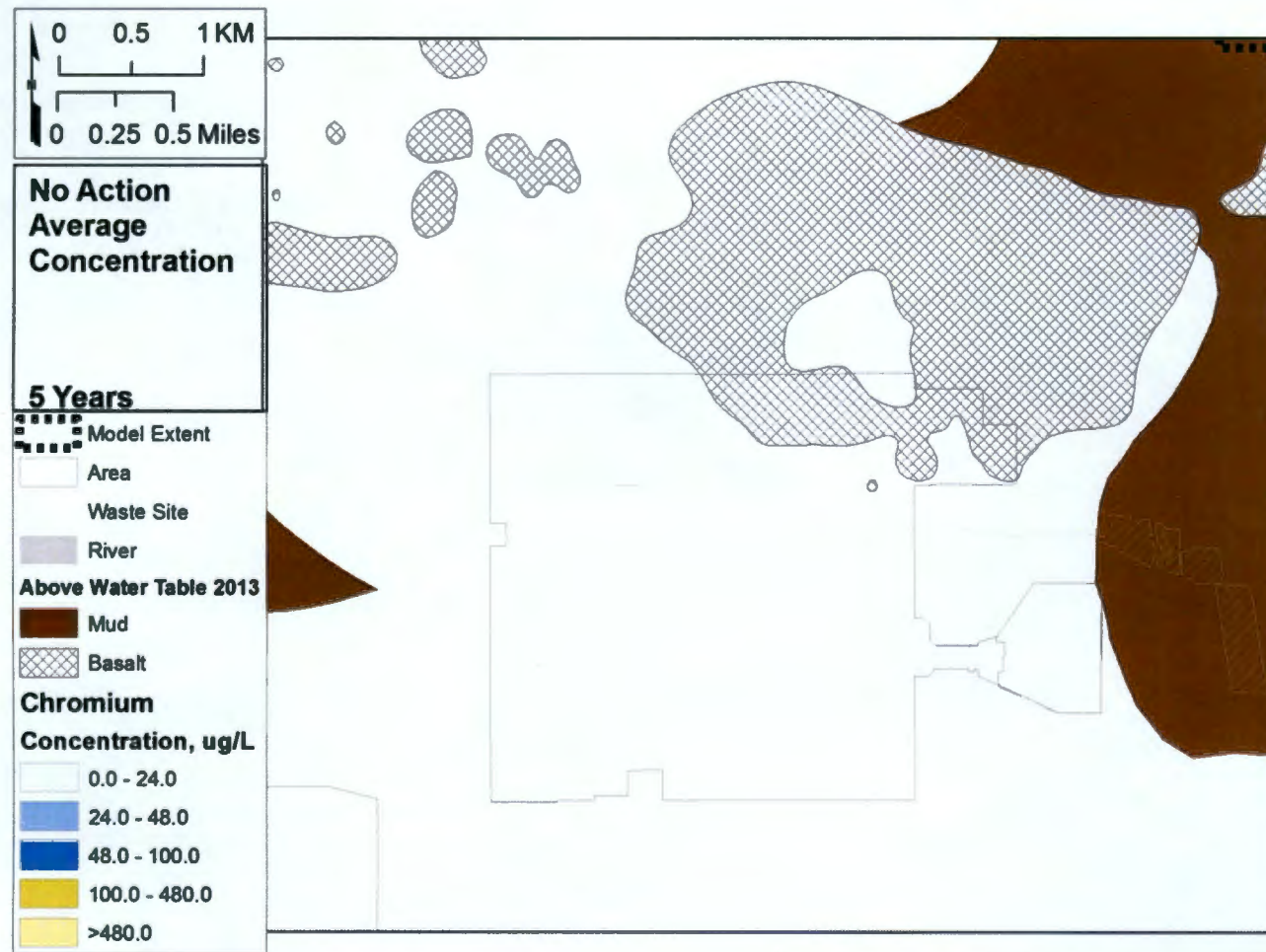


Figure B-2 - Plan view contours of the hexavalent chromium plume at simulation time 2 years based on the base case simulation using average concentration initial conditions



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Figure B-3 - Plan view contours of the hexavalent chromium plume at simulation time 5 years based on the base case simulation using average concentration initial conditions

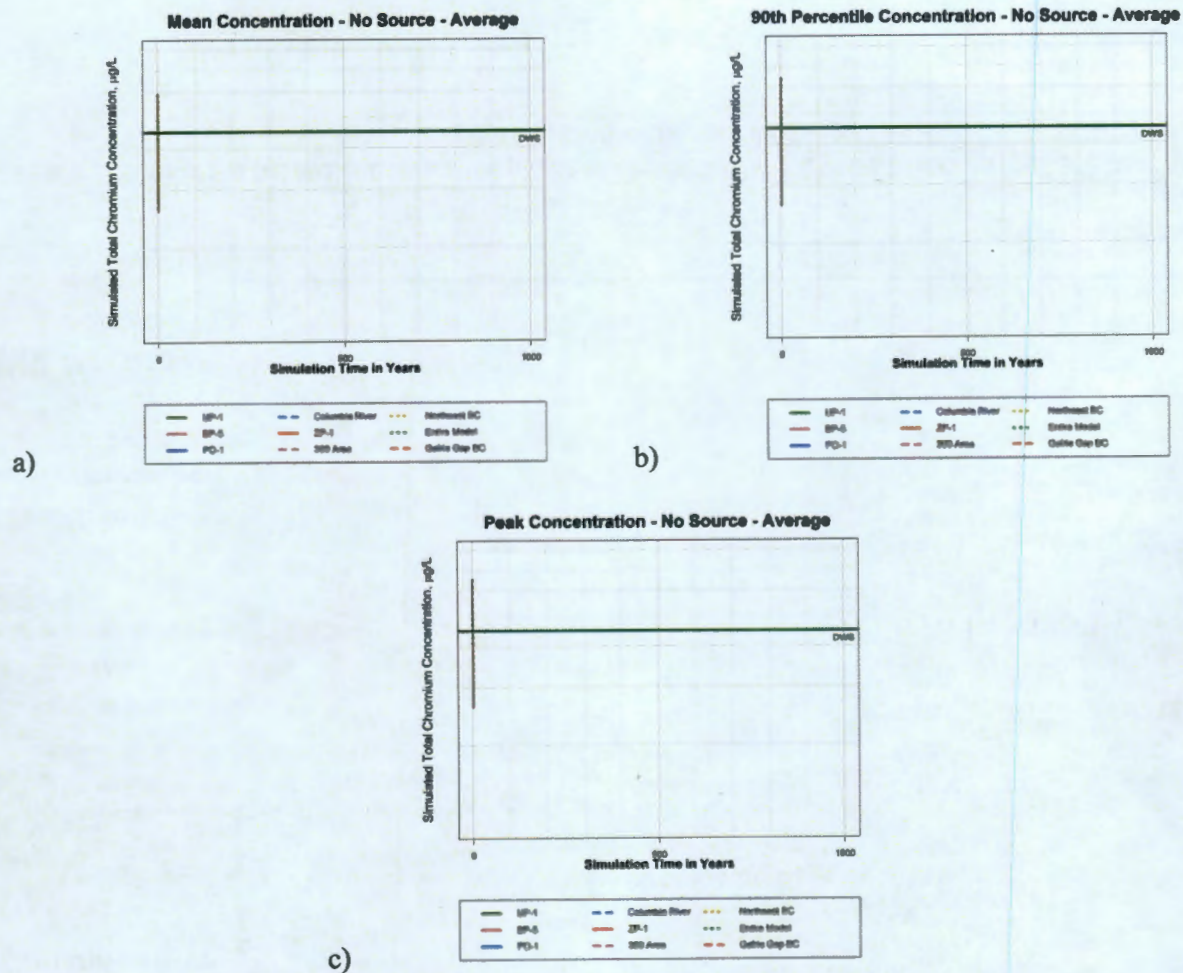


Figure B-4 - Statistical summary of simulated concentration within subregions of the model domain for the hexavalent chromium plume for the base case simulation using average concentration initial conditions.

Table 1 - Summary of simulated concentrations (µg/L) at selected well locations within the model domain for the hexavalent chromium base case simulation using the average concentration condition.

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
699-42-42B	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-44	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-1	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-14	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-22	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-23	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-25	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-16	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-23	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-19	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-20	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-3	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-36	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-37-47A	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-20	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-34	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-93	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-4	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CMAx	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-25	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-2	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-23	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-24	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-30	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E29-54	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-16	200-BP-5	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-18	200-BP-5	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-1A	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-2	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-205	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-26	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-3	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-31	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-32	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-337	200-BP-5	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-339	200-BP-5	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E27-14	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-155	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-21	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-22	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-23	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-24	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-4	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

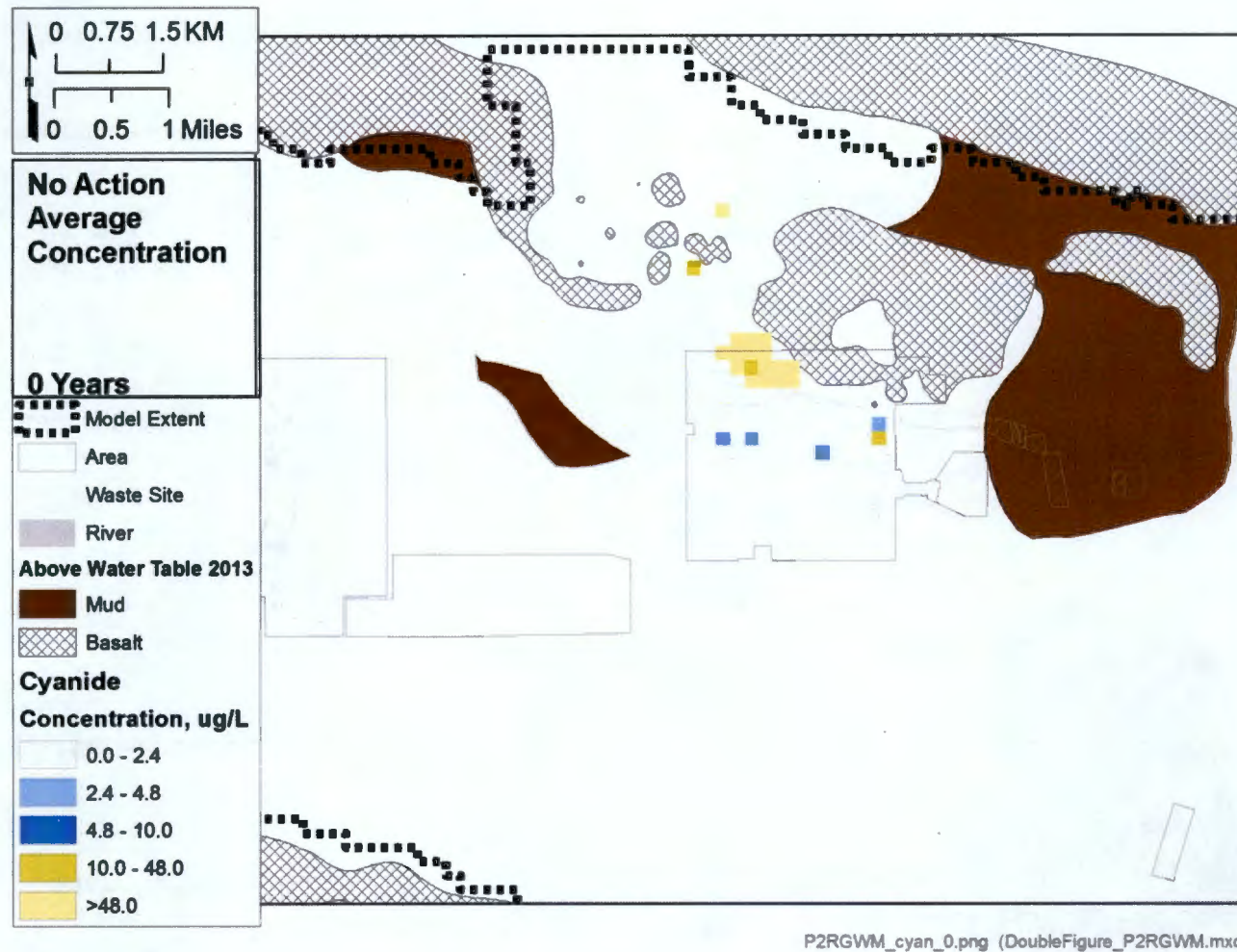


Figure B-5 - Plan view contours of the cyanide plume at simulation time 0 years based on the base case simulation using average concentration initial conditions

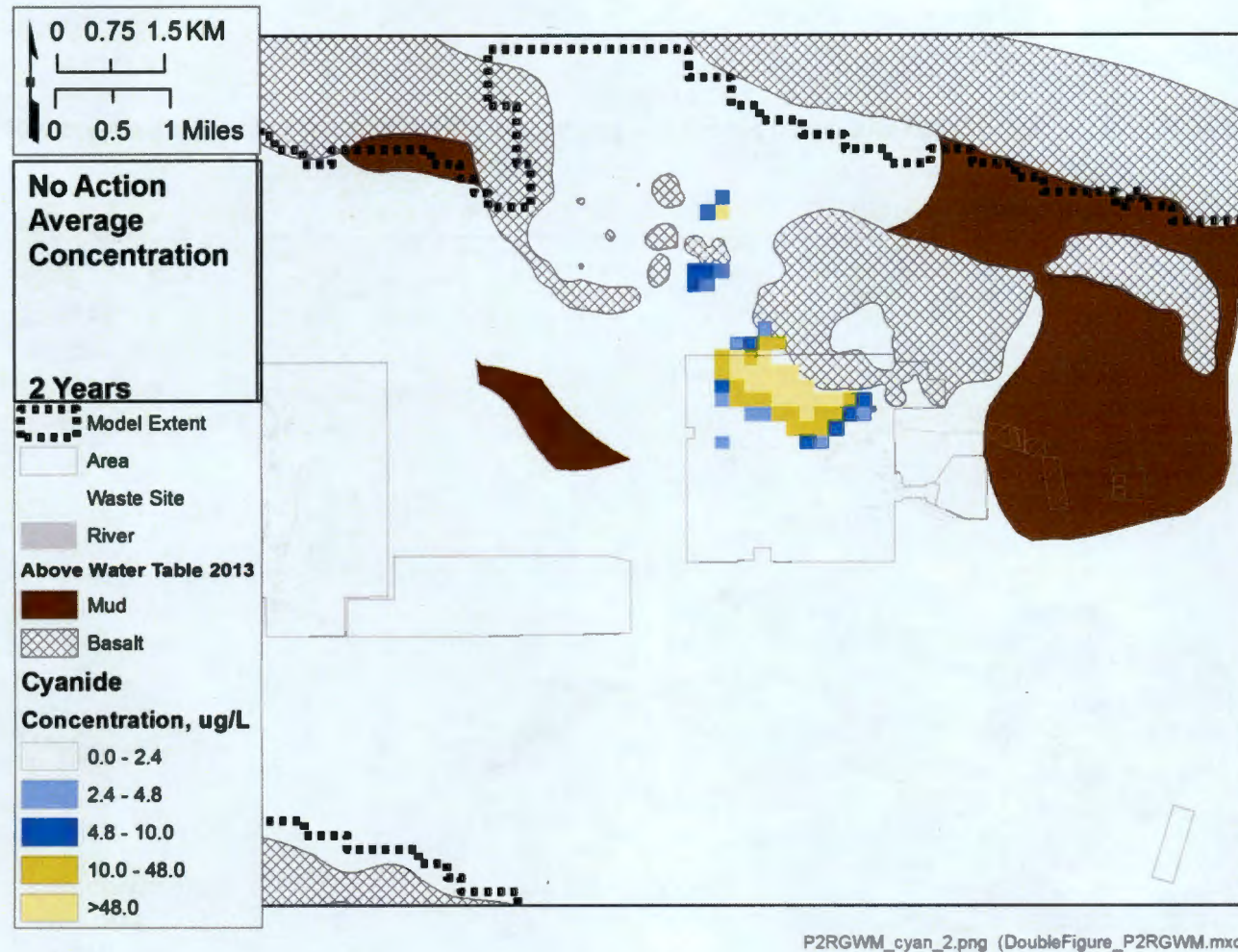
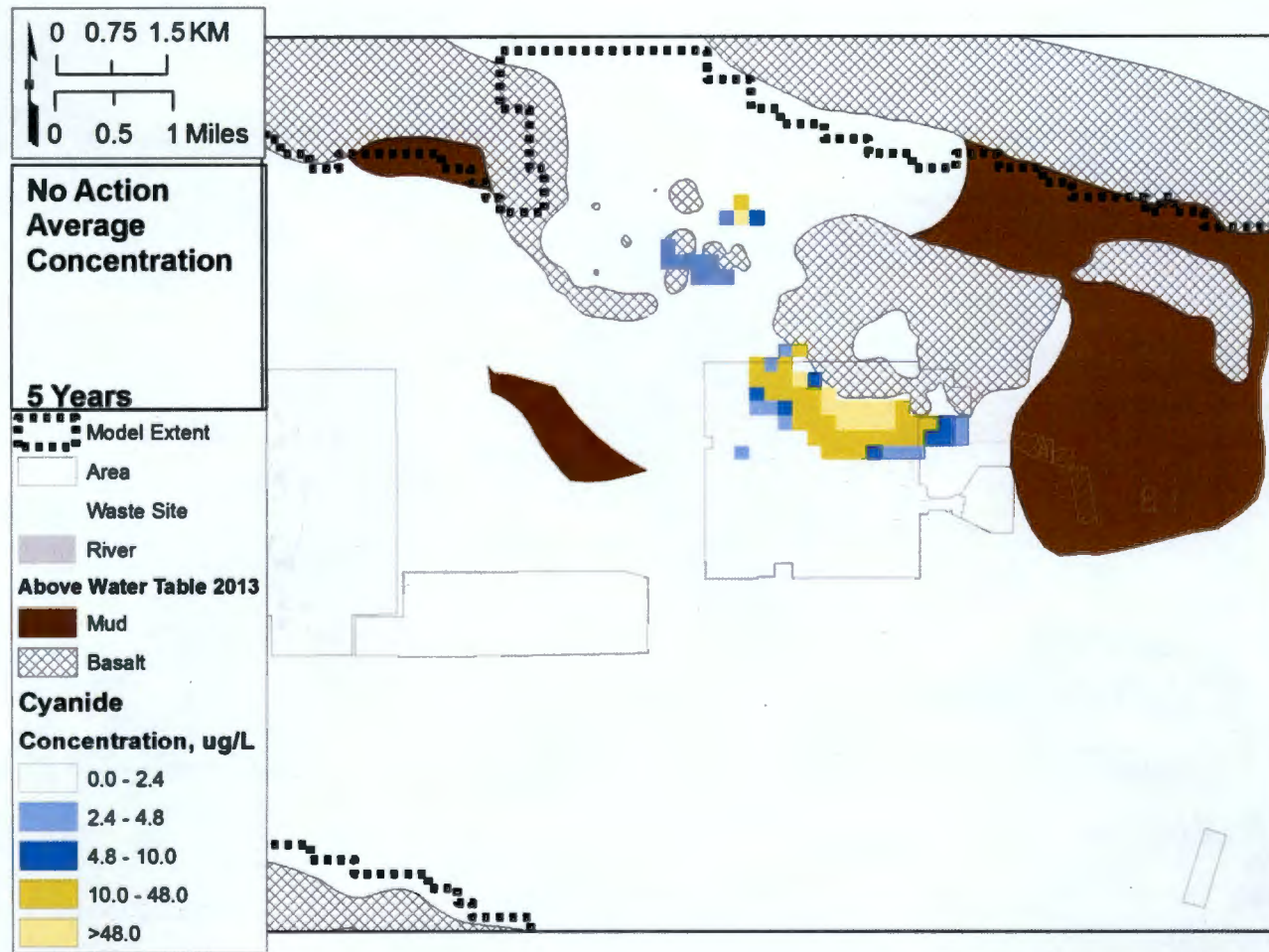


Figure B-6 - Plan view contours of the cyanide plume at simulation time 2 years based on the base case simulation using average concentration initial conditions



P2RGWM_cyan_5.png (DoubleFigure_P2RGWM.mxd)

Figure B-7 - Plan view contours of the cyanide plume at simulation time 5 years based on the base case simulation using average concentration initial conditions

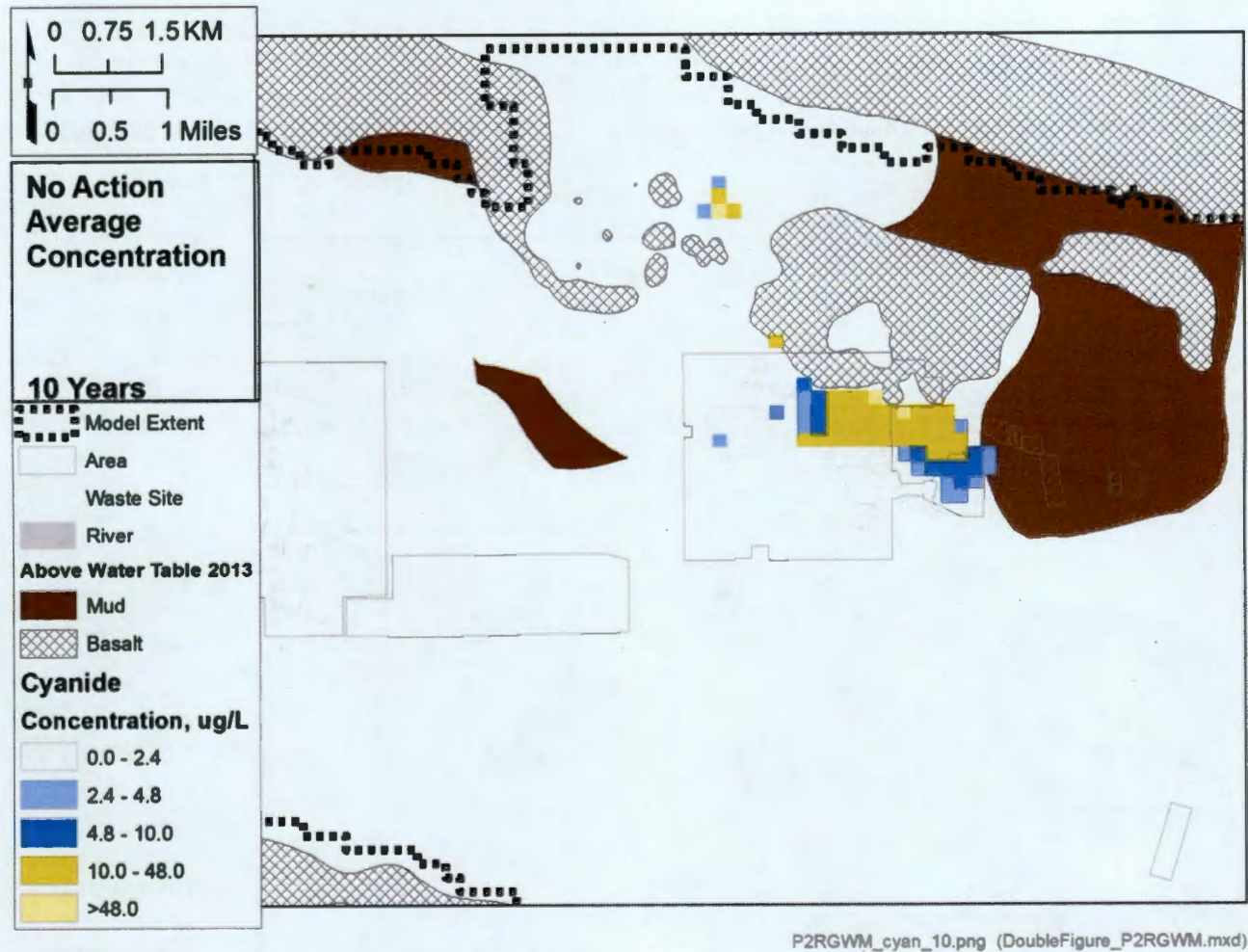


Figure B-8 - Plan view contours of the cyanide plume at simulation time 10 years based on the base case simulation using average concentration initial conditions

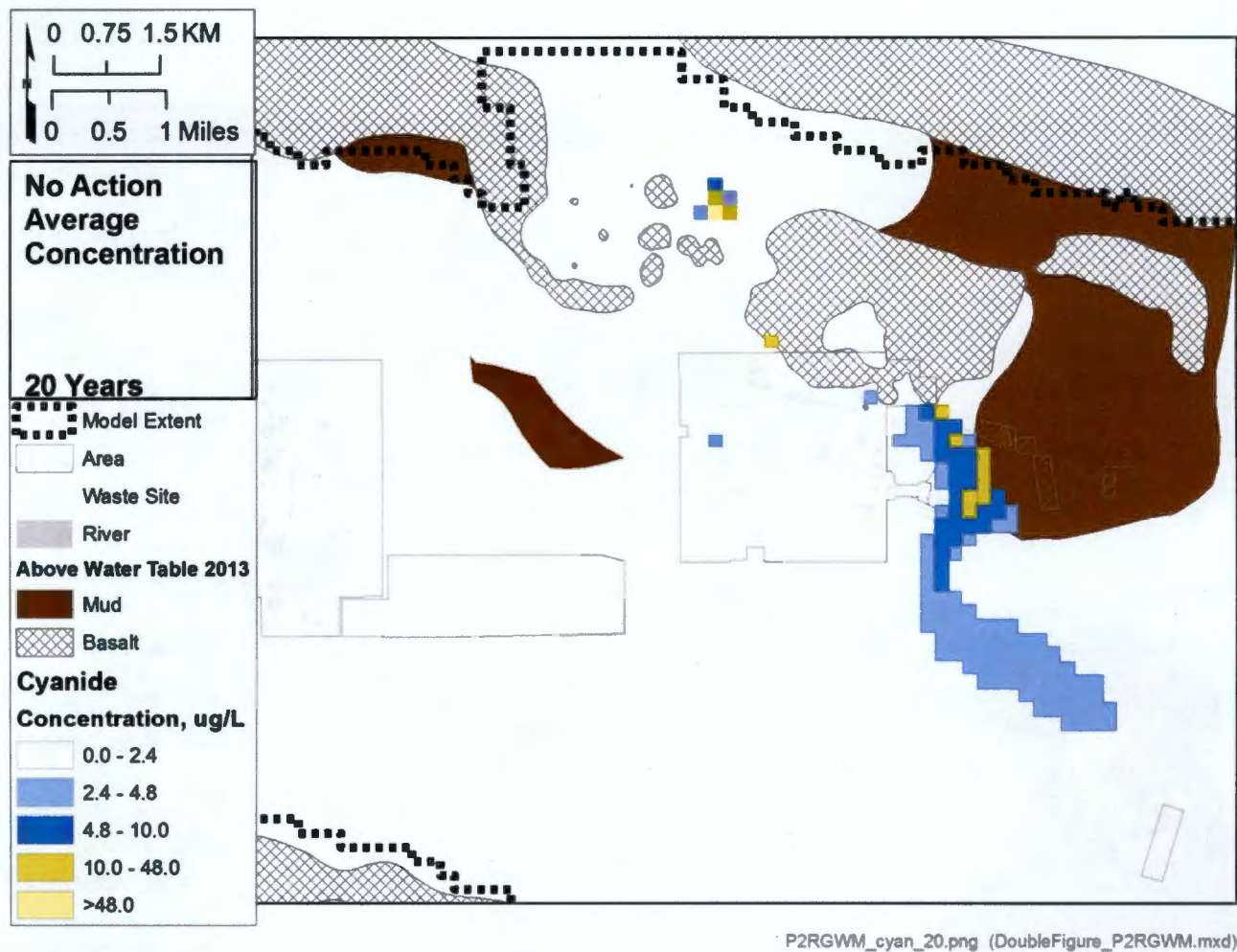


Figure B-9 - Plan view contours of the cyanide plume at simulation time 20 years based on the base case simulation using average concentration initial conditions

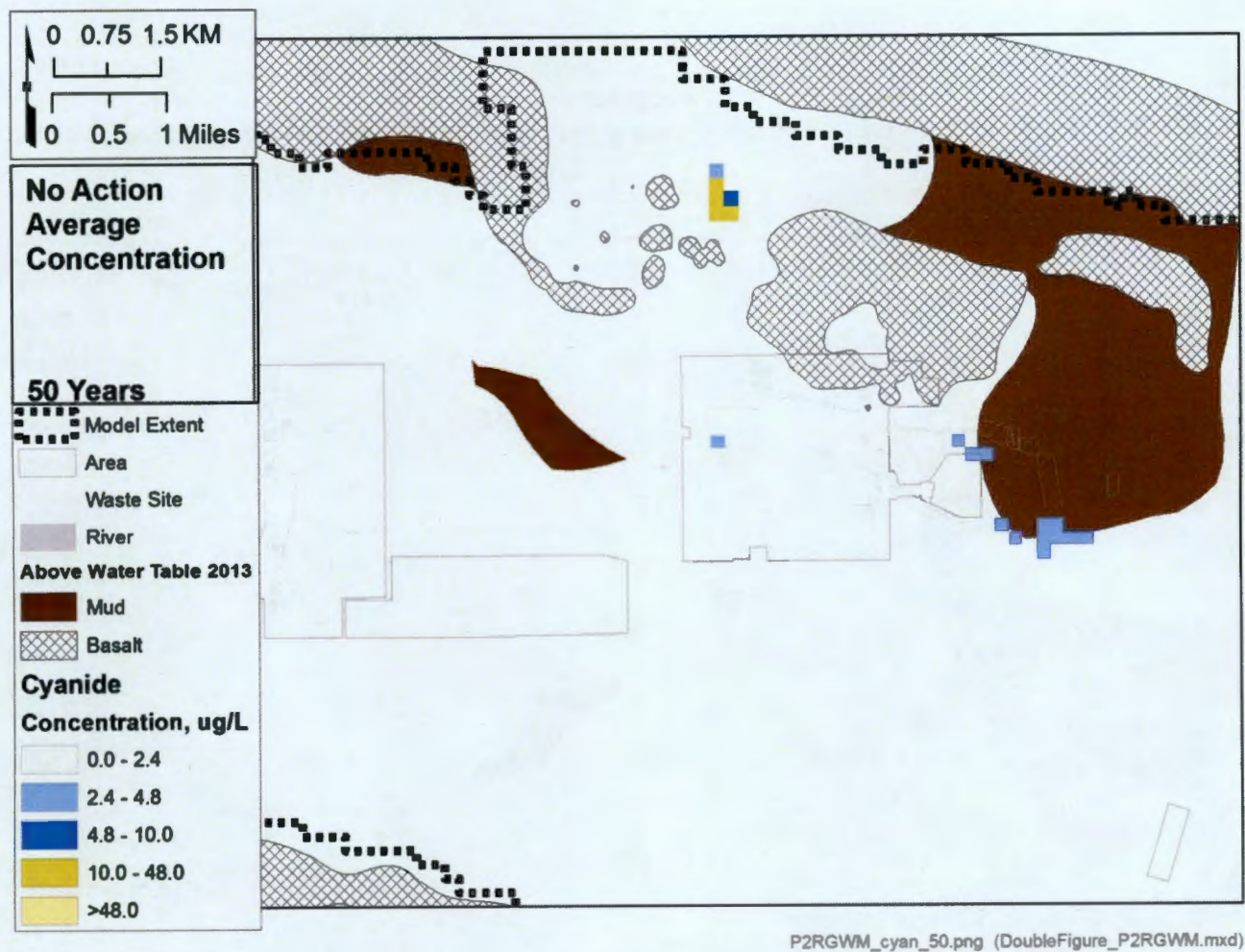


Figure B-10 - Plan view contours of the cyanide plume at simulation time 50 years based on the base case simulation using average concentration initial conditions

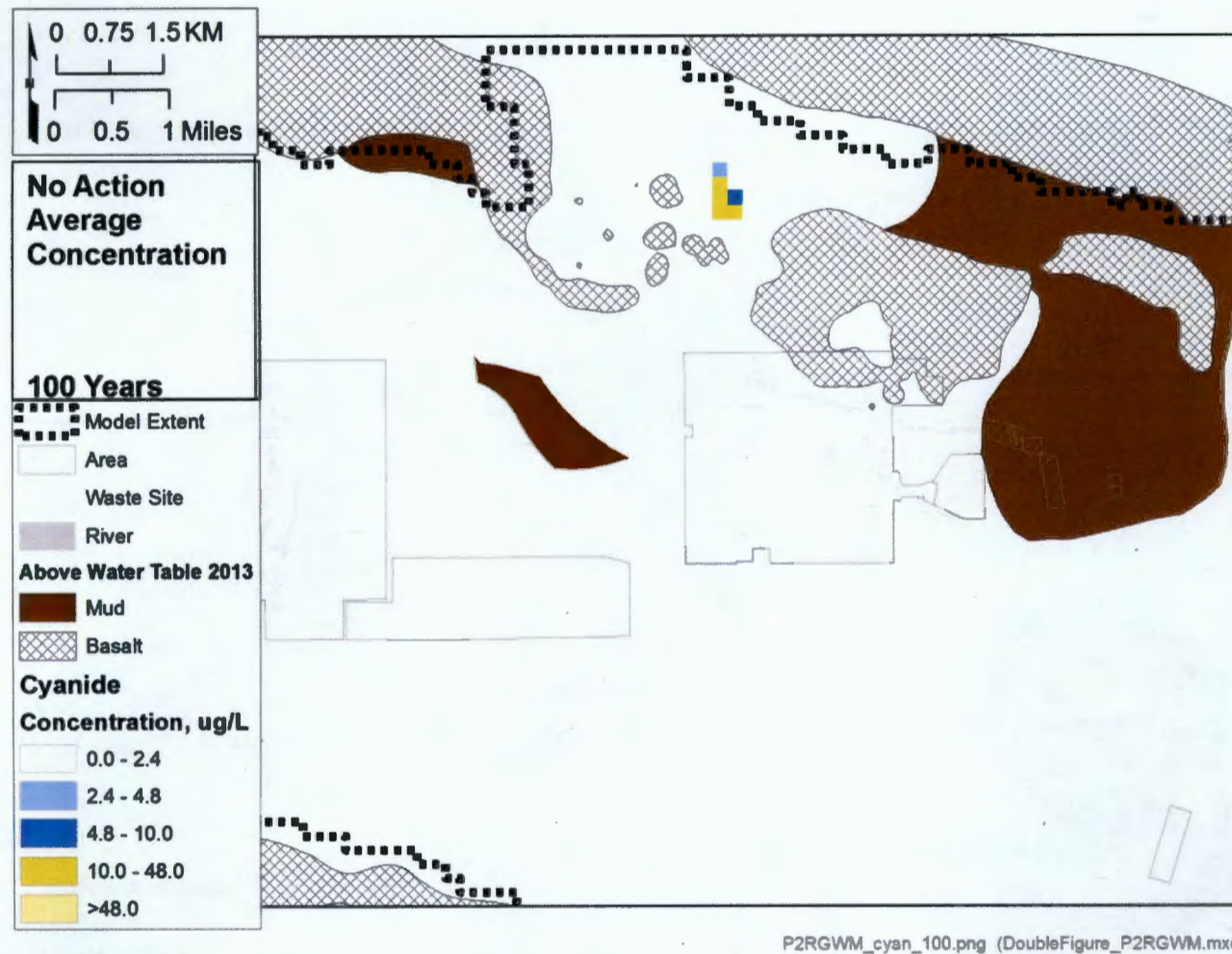
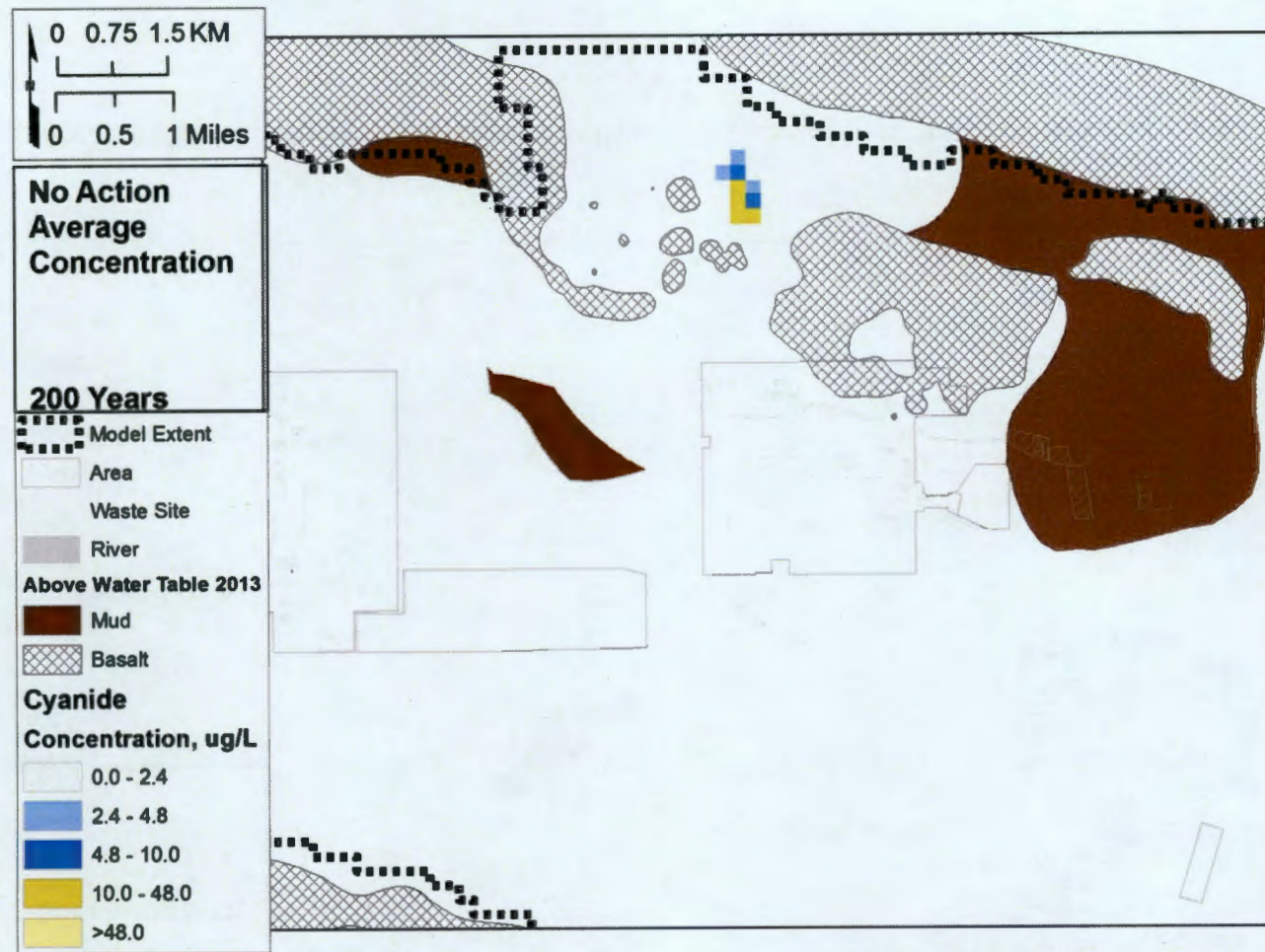


Figure B-11 - Plan view contours of the cyanide plume at simulation time 100 years based on the base case simulation using average concentration initial conditions



P2RGWM_cyan_200.png (DoubleFigure_P2RGWM.mxd)

Figure B-12 - Plan view contours of the cyanide plume at simulation time 200 years based on the base case simulation using average concentration initial conditions

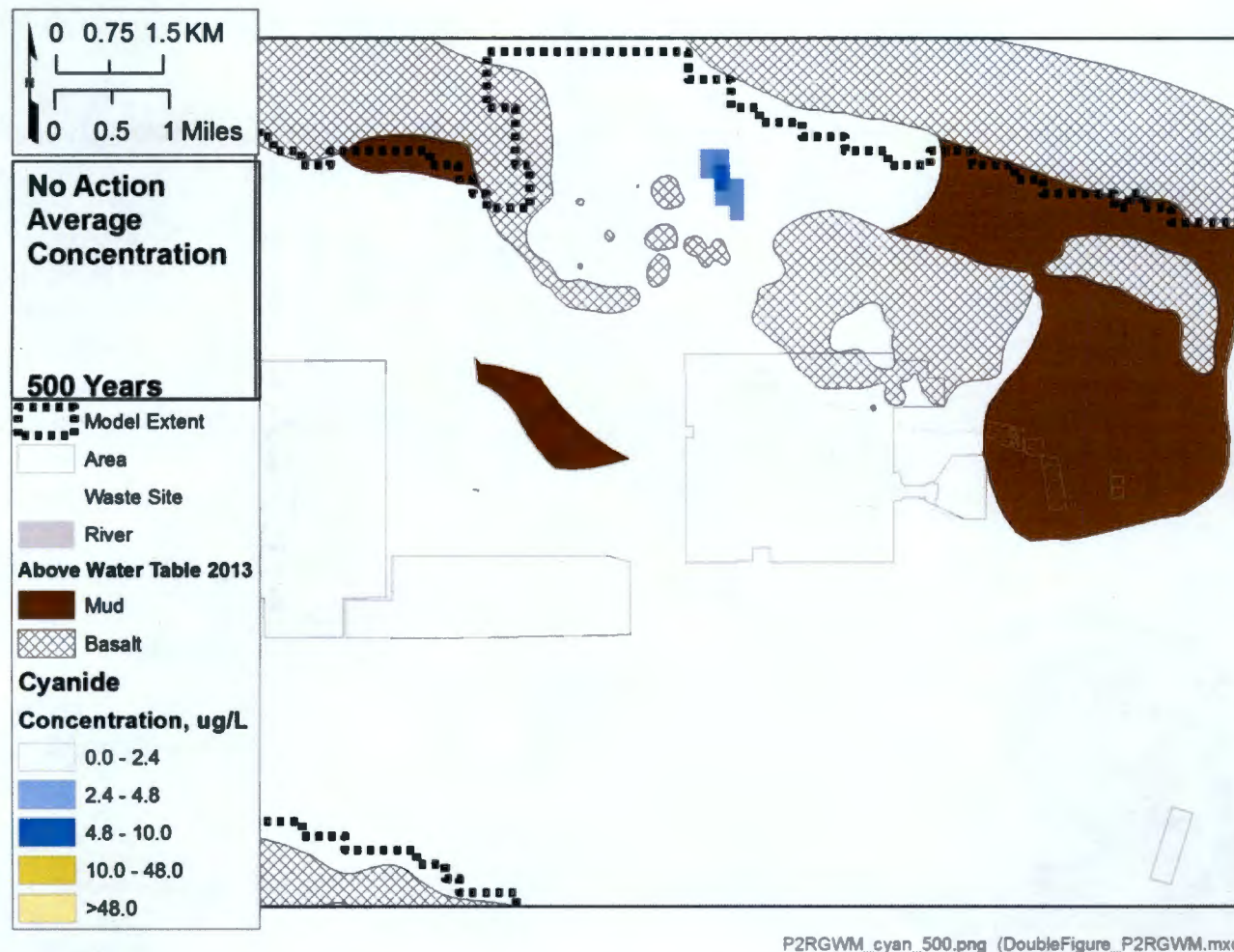
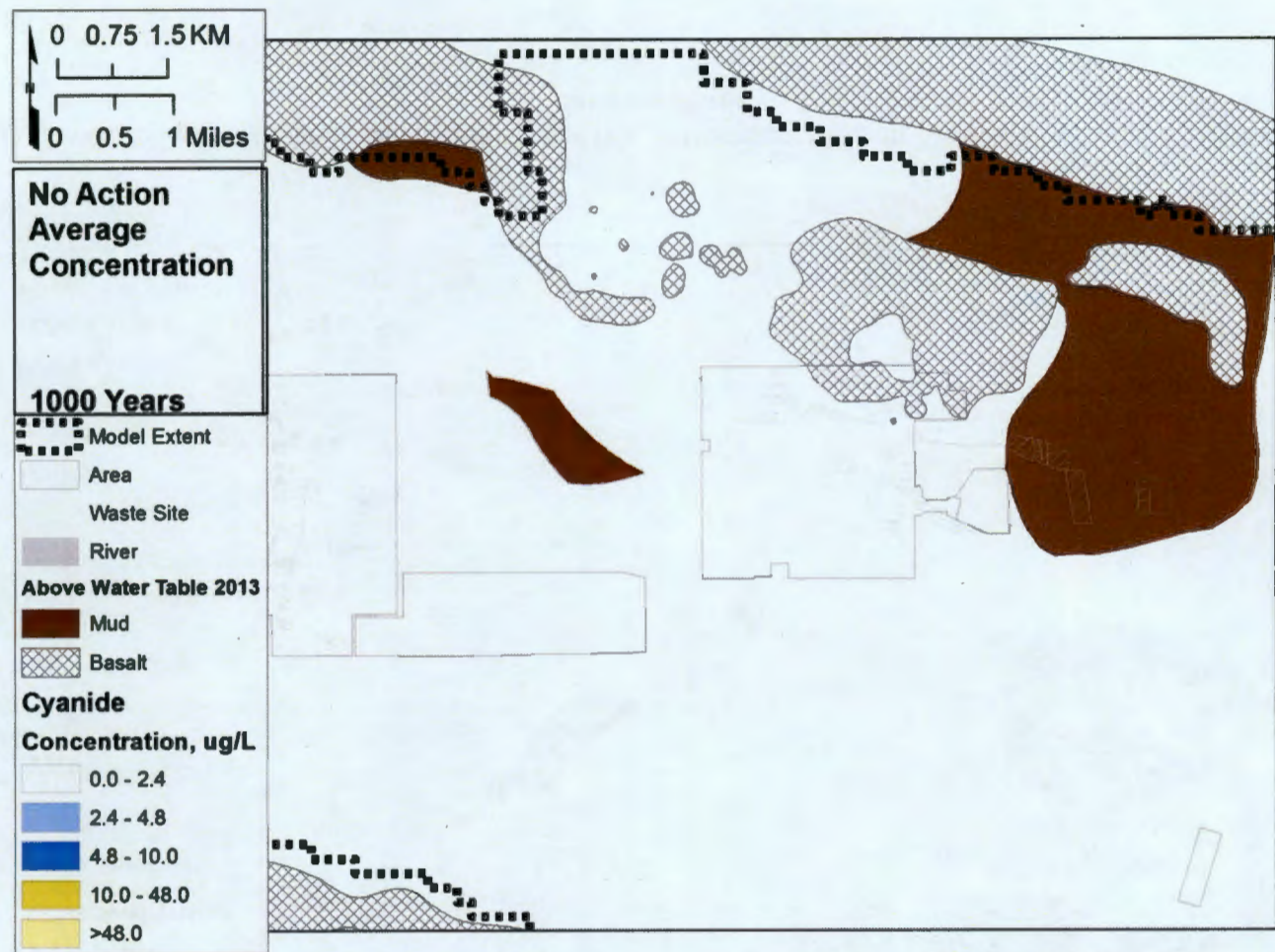


Figure B-13 - Plan view contours of the cyanide plume at simulation time 500 years based on the base case simulation using average concentration initial conditions



P2RGWM_cyan_1000.png (DoubleFigure_P2RGWM.mxd)

Figure B-14 - Plan view contours of the cyanide plume at simulation time 1000 years based on the base case simulation using average concentration initial conditions

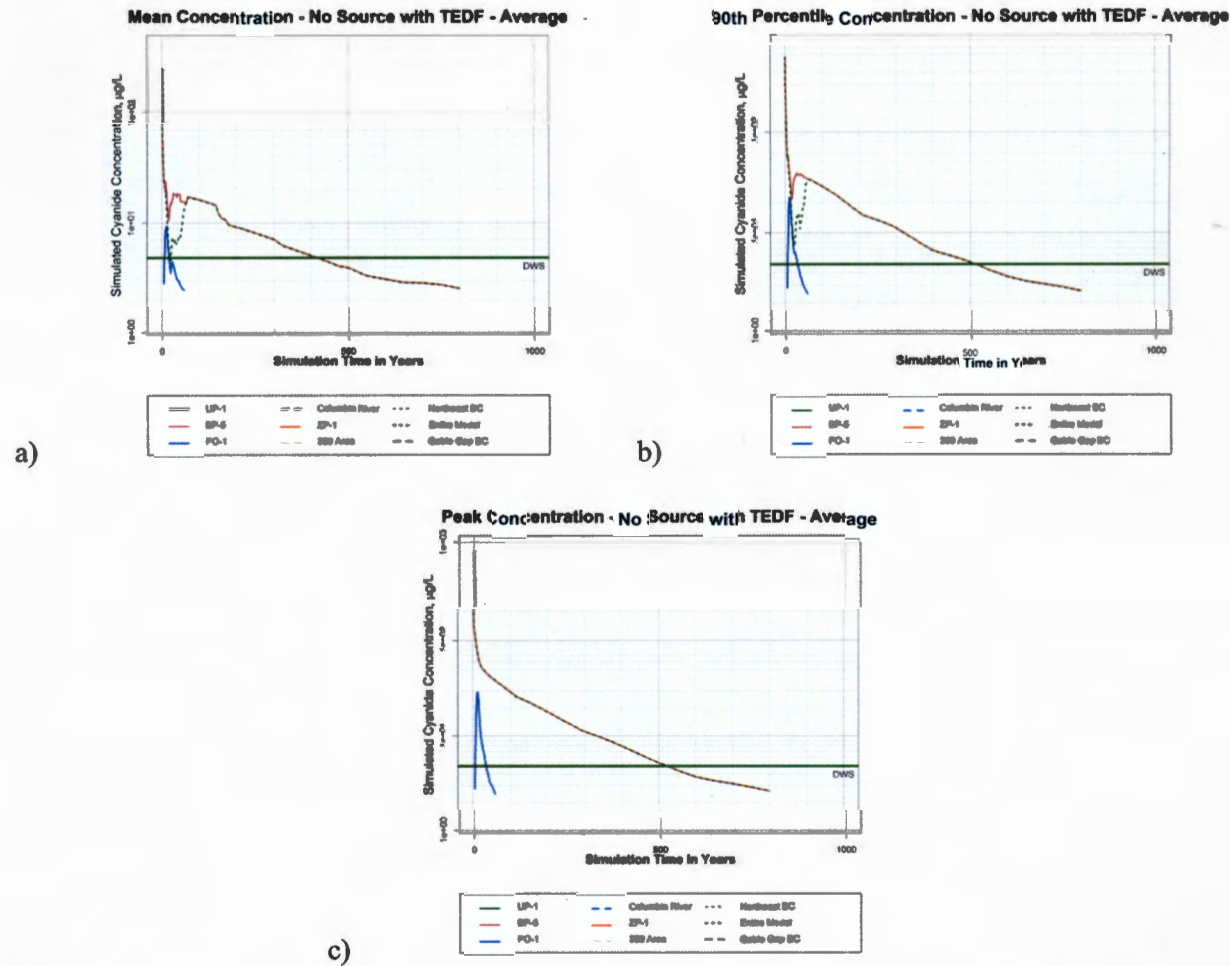


Figure B-15 - Statistical summary of simulated concentration within subregions of the model domain for the cyanide plume for the base case simulation using average concentration initial conditions.

Table 2 - Summary of simulated concentrations (µg/L) at selected well locations within the model domain for the cyanide base case simulation using the average concentration condition.

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
699-42-42B	200-PO-1	0.0	1.9	1.4	1.2	1.1	0.9	0.7	0.6	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-44	200-PO-1	0.0	1.3	1.3	1.3	1.1	0.9	0.8	0.7	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	0.1	2.4	1.9	1.5	1.2	0.9	0.7	0.6	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-1	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-14	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-22	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-23	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-25	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-16	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-23	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-19	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-20	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-3	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-36	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-37-47A	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-20	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-34	200-PO-1	0.0	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-93	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-4	200-PO-1	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	0.1	2.4	1.9	1.5	1.2	0.9	0.7	0.6	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0
CMAX	200-PO-1	1.2	8.1	3.1	1.8	1.3	1.0	0.9	0.8	0.7	0.5	0.4	0.4	0.3	0.2	0.2	0.2	0.2
299-E24-25	200-BP-5	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-2	200-BP-5	2.1	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-23	200-BP-5	1.6	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-24	200-BP-5	1.5	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-30	200-BP-5	2.4	2.0	1.6	1.4	1.2	1.1	1.0	1.0	1.0	0.8	0.6	0.4	0.3	0.2	0.1	0.1	0.1
299-E29-54	200-BP-5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0
299-E33-16	200-BP-5	347.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-18	200-BP-5	261.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-1A	200-BP-5	235.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-2	200-BP-5	220.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-205	200-BP-5	183.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-26	200-BP-5	148.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-3	200-BP-5	230.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-31	200-BP-5	154.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-32	200-BP-5	101.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-337	200-BP-5	142.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-339	200-BP-5	132.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E33-341	200-BP-5	180.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-342	200-BP-5	233.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-343	200-BP-5	232.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-345	200-BP-5	264.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-38	200-BP-5	204.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-4	200-BP-5	215.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-41	200-BP-5	195.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-42	200-BP-5	125.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-43	200-BP-5	89.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-44	200-BP-5	282.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-47	200-BP-5	252.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-49	200-BP-5	114.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-5	200-BP-5	190.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-7	200-BP-5	183.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-9	200-BP-5	249.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-49-57A	200-BP-5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-50-56	200-BP-5	7.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-50-59	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-55C	200-BP-5	93.2	30.9	24.7	20.8	17.7	15.1	12.9	11.4	9.4	5.1	2.8	1.6	0.9	0.5	0.3	0.2	0.1
699-55-57	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-57-59	200-BP-5	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-60-60	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-61-62	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-47B	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-48A	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-54-49	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-27	200-BP-5	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-10	200-BP-5	11.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-6	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-7	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-9	200-BP-5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-29	200-BP-5	40.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-34	200-BP-5	48.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-35	200-BP-5	101.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-10	200-BP-5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-12	200-BP-5	76.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-9	200-BP-5	208.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-13	200-BP-5	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E27-14	200-BP-5	1.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-155	200-BP-5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-21	200-BP-5	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-22	200-BP-5	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-23	200-BP-5	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-24	200-BP-5	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-4	200-BP-5	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

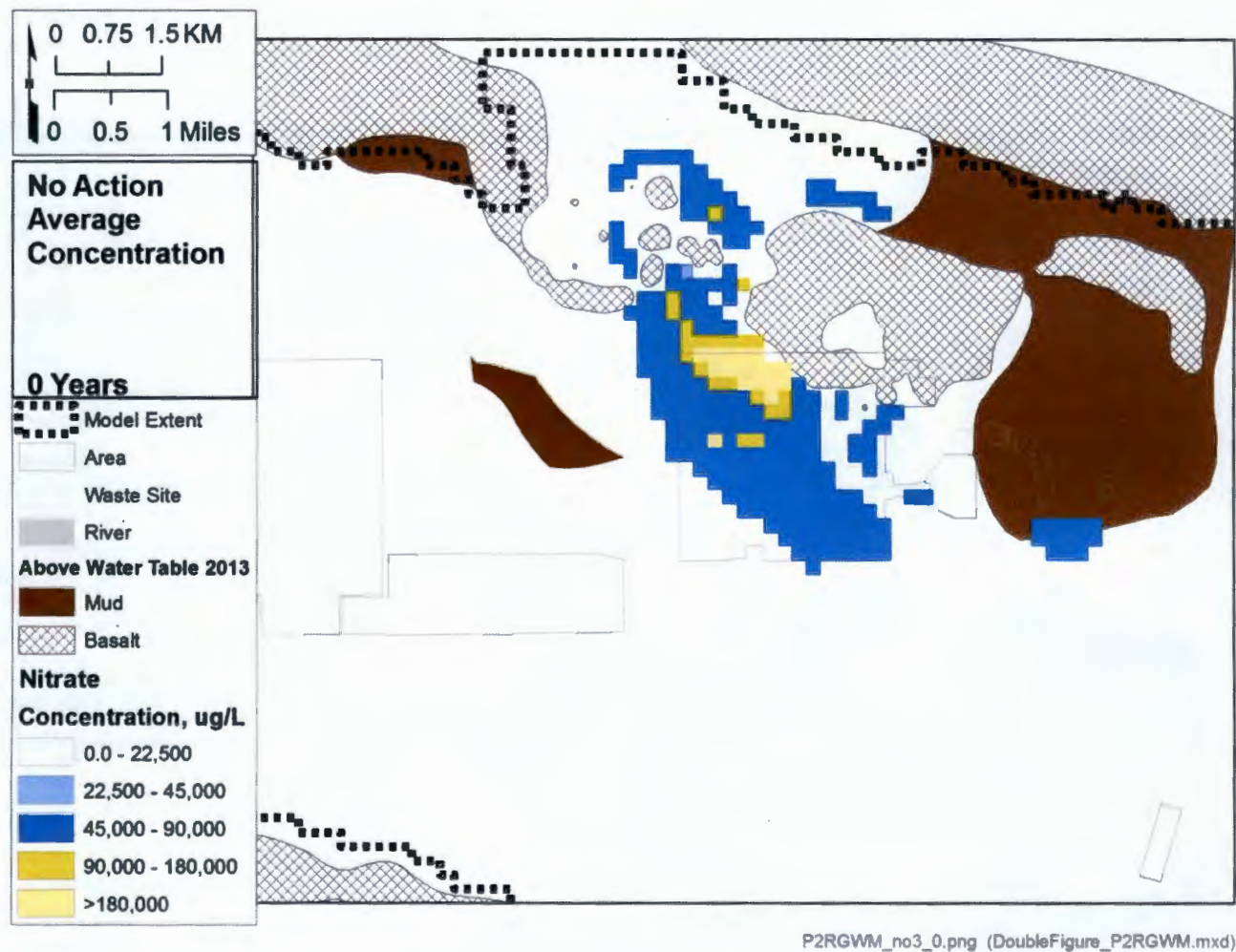


Figure B-16 - Plan view contours of the nitrate plume at simulation time 0 years based on the base case simulation using average concentration initial conditions

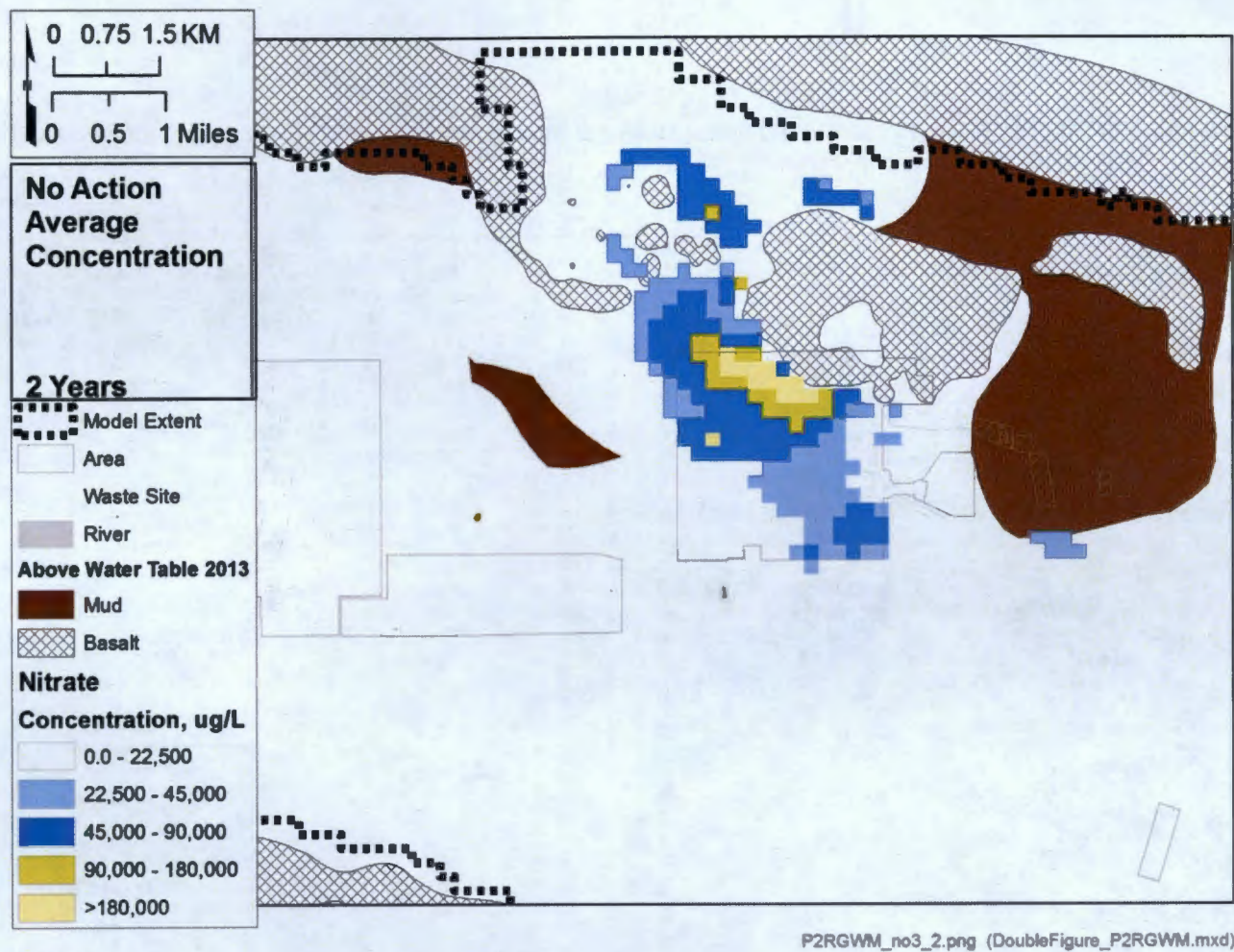


Figure B-17 - Plan view contours of the nitrate plume at simulation time 2 years based on the base case simulation using average concentration initial conditions

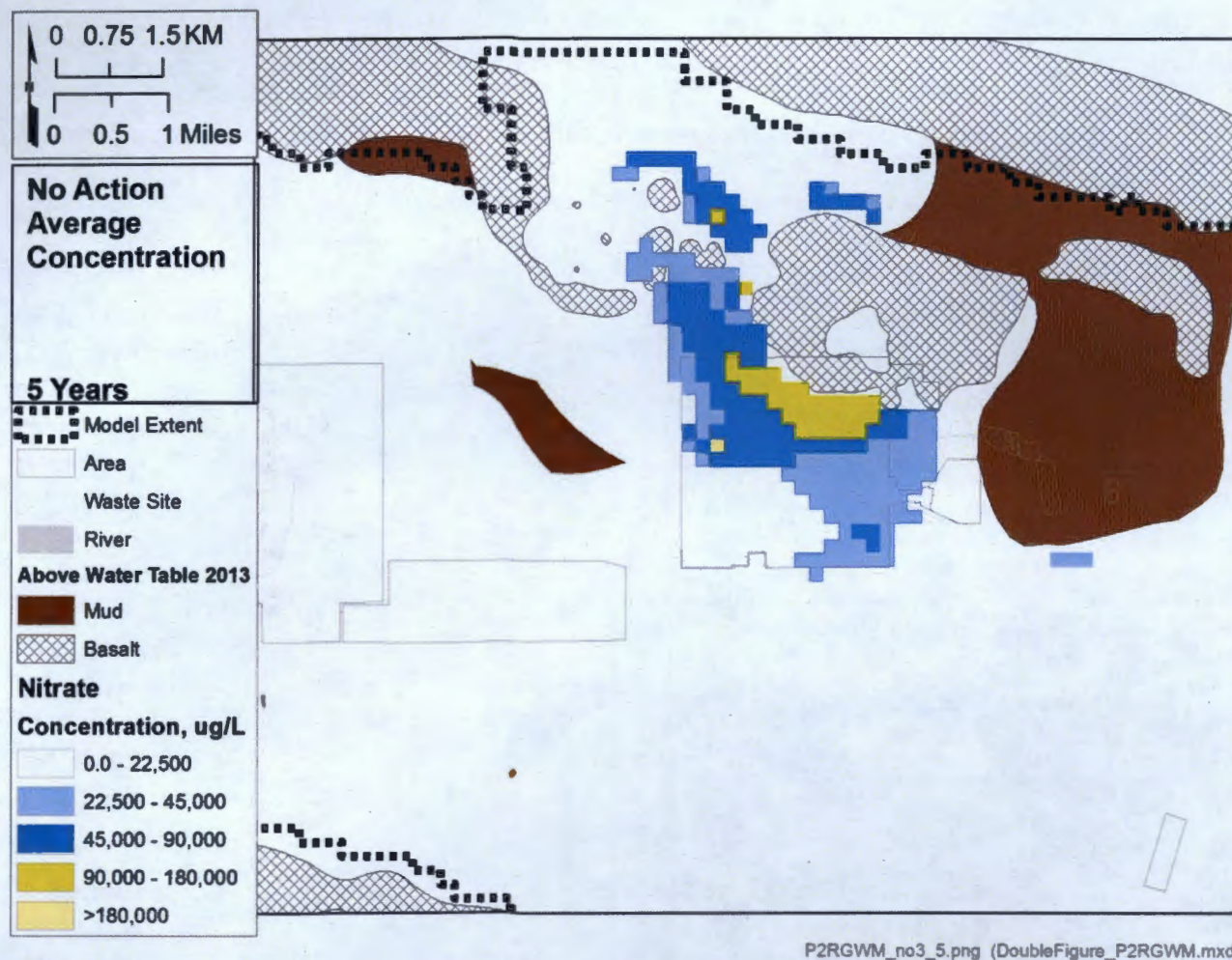


Figure B-18 - Plan view contours of the nitrate plume at simulation time 5 years based on the base case simulation using average concentration initial conditions

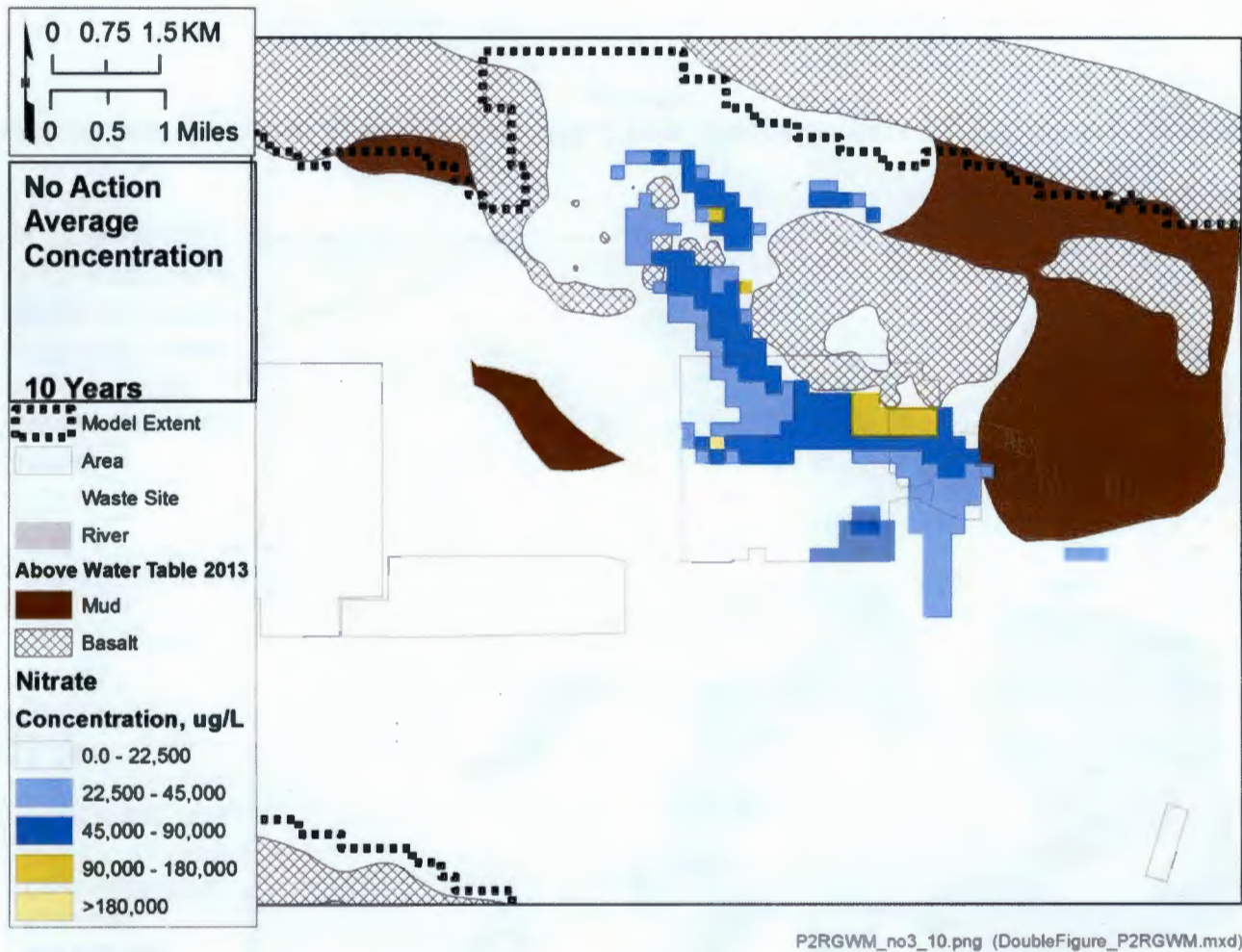
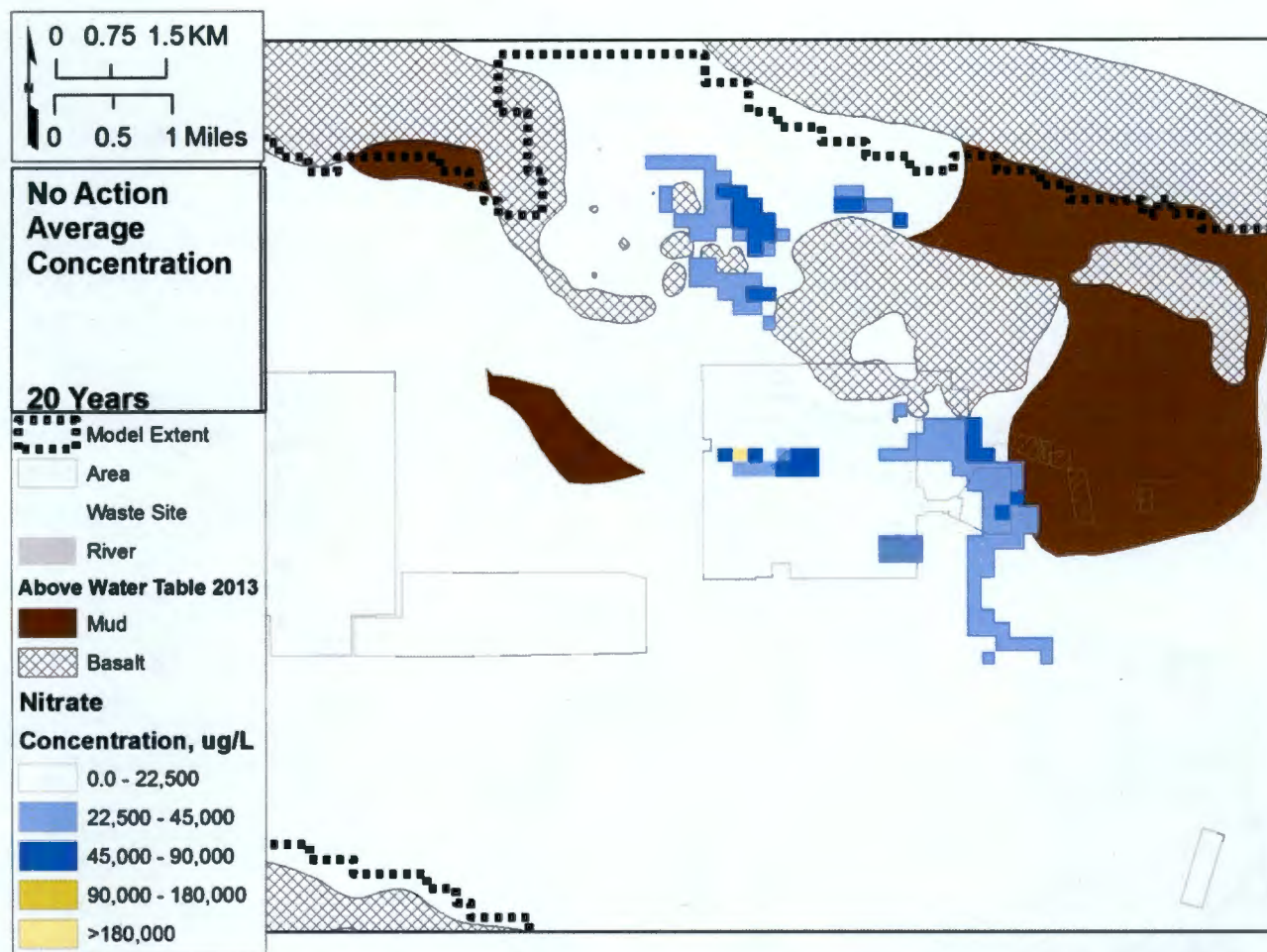
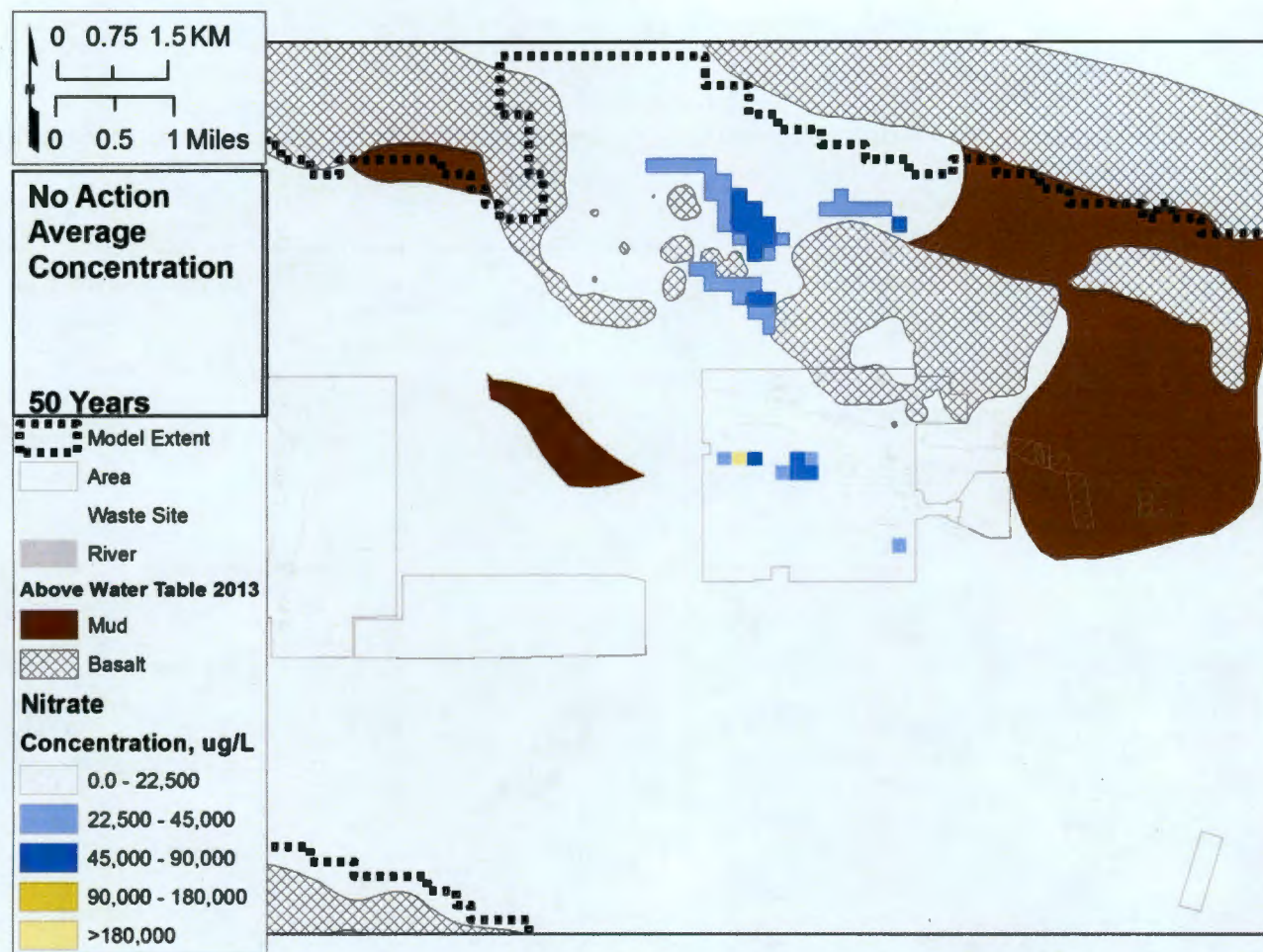


Figure B-19 - Plan view contours of the nitrate plume at simulation time 10 years based on the base case simulation using average concentration initial conditions



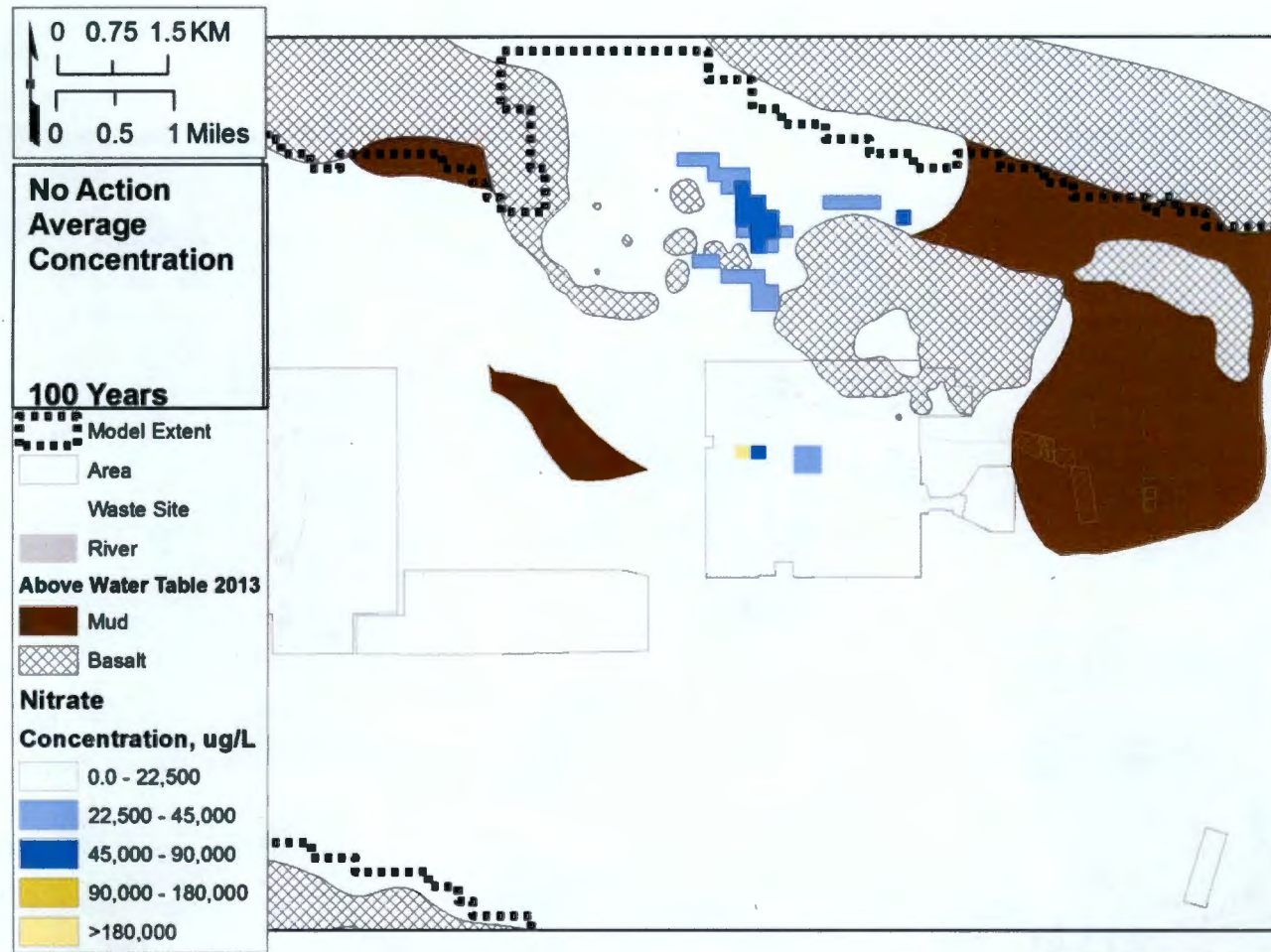
P2RGWM_no3_20.png (DoubleFigure_P2RGWM.mxd)

Figure B-20 - Plan view contours of the nitrate plume at simulation time 20 years based on the base case simulation using average concentration initial conditions



P2RGWM_no3_50.png (DoubleFigure_P2RGWM.mxd)

Figure B-21 - Plan view contours of the nitrate plume at simulation time 50 years based on the base case simulation using average concentration initial conditions



P2RGWM_no3_100.png (DoubleFigure_P2RGWM.mxd)

Figure B-22 - Plan view contours of the nitrate plume at simulation time 100 years based on the base case simulation using average concentration initial conditions

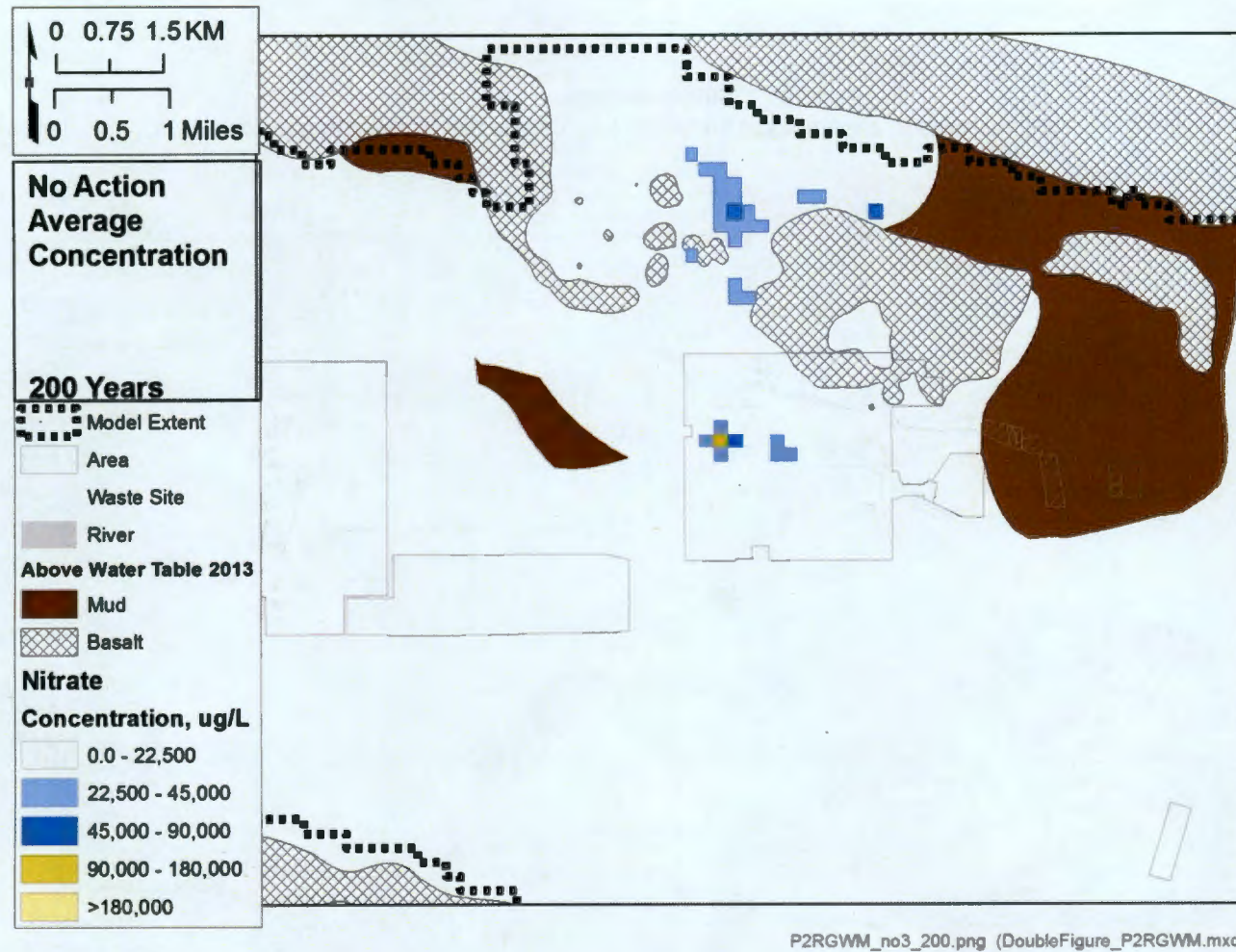
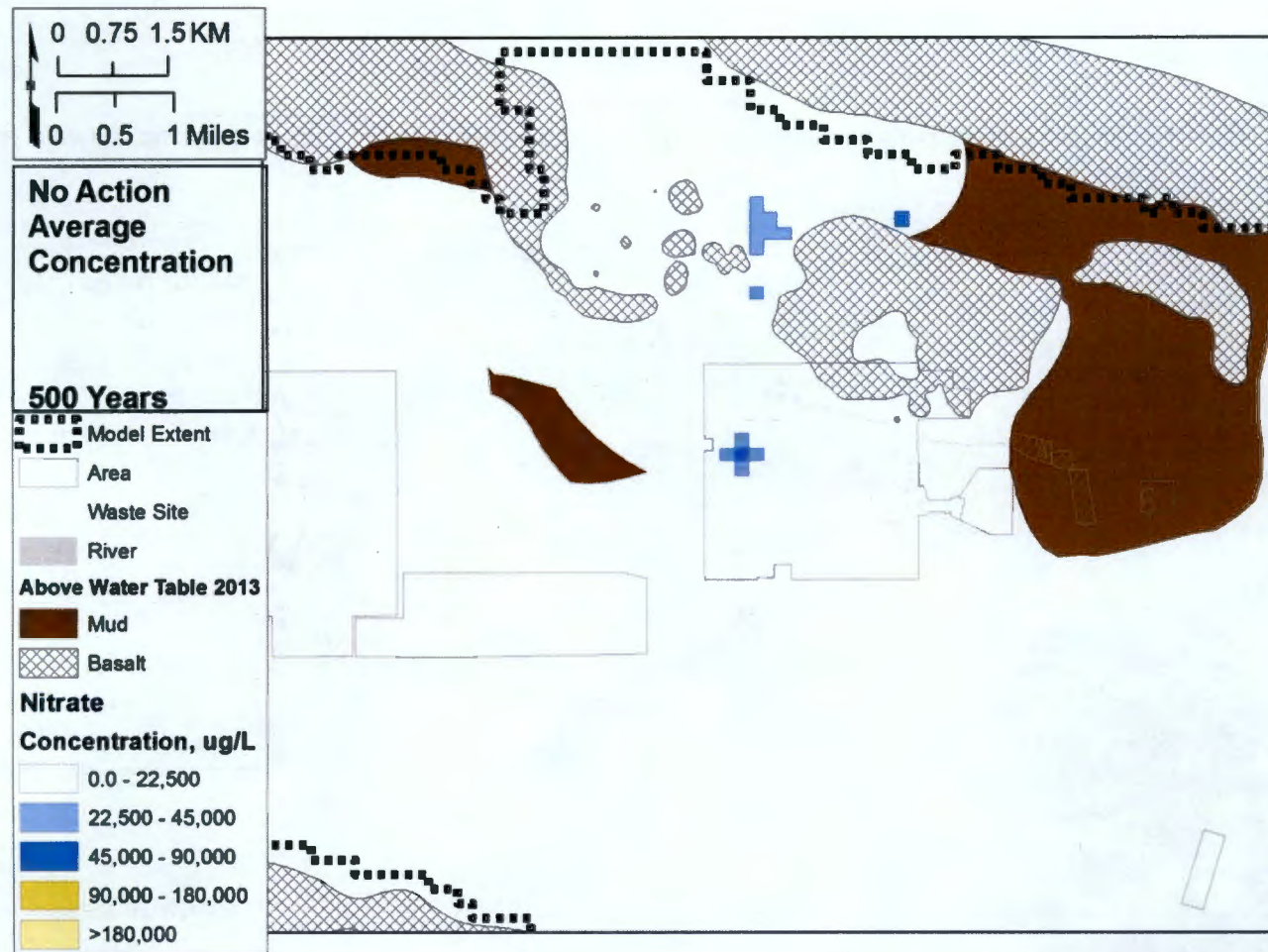


Figure B-23 - Plan view contours of the nitrate plume at simulation time 200 years based on the base case simulation using average concentration initial conditions



P2RGWM_no3_500.png (DoubleFigure_P2RGWM.mxd)

Figure B-24 - Plan view contours of the nitrate plume at simulation time 500 years based on the base case simulation using average concentration initial conditions

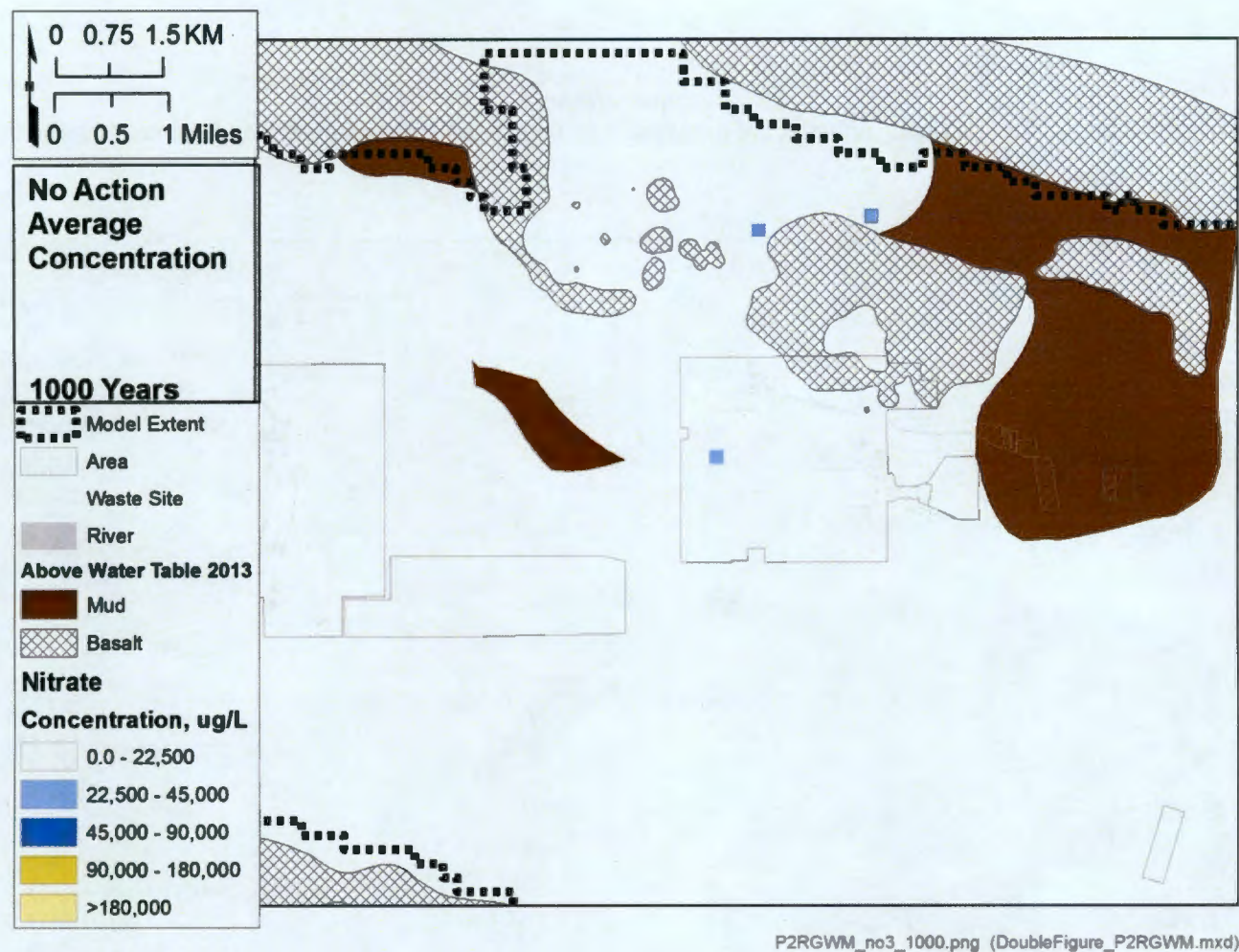


Figure B-25 - Plan view contours of the nitrate plume at simulation time 1000 years based on the base case simulation using average concentration initial conditions

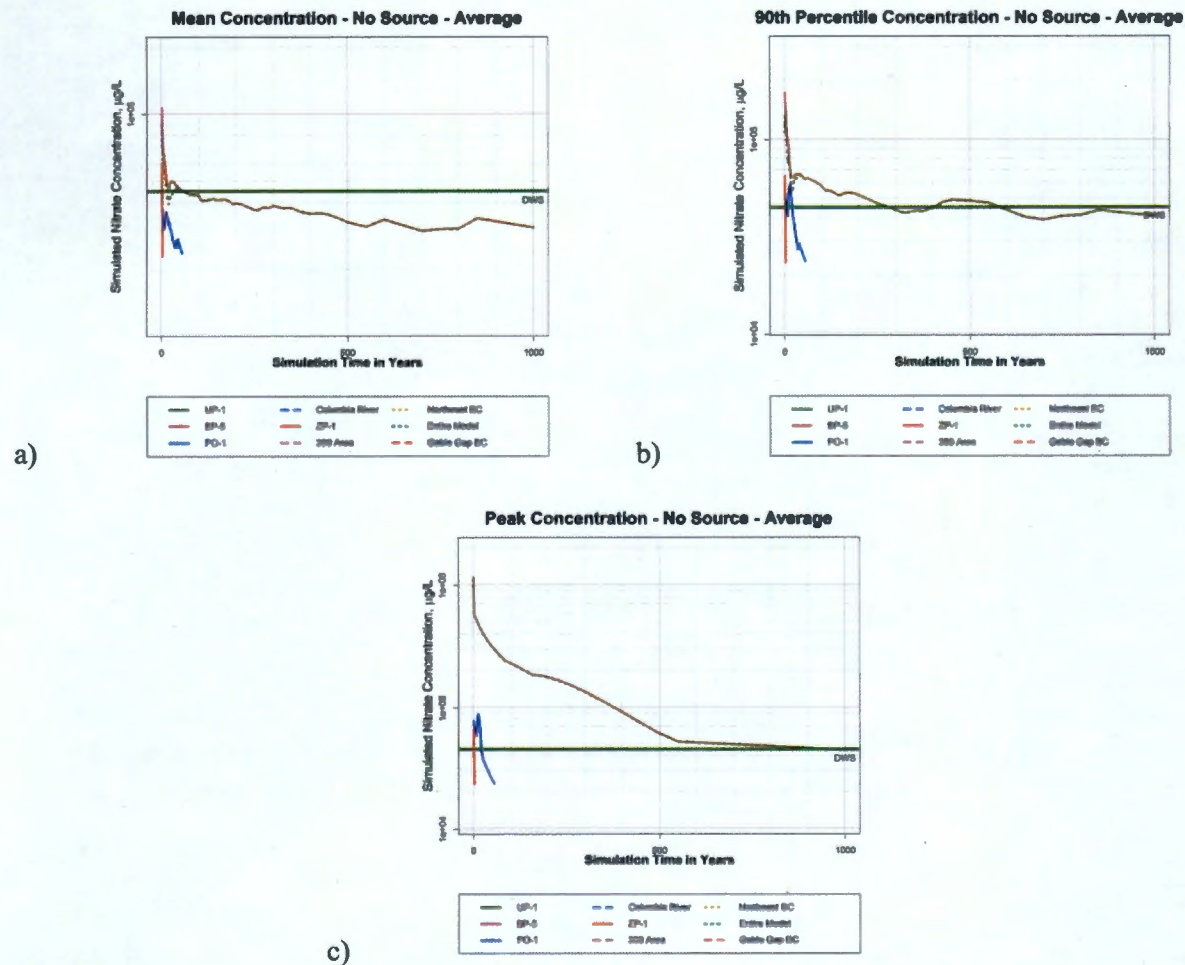


Figure B-26 - Statistical summary of simulated concentration within subregions of the model domain for the nitrate plume for the base case simulation using average concentration initial conditions.

Table 3 - Summary of simulated concentrations (µg/L) at selected well locations within the model domain for the nitrate base case simulation using the average concentration condition.

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
699-42-42B	200-PO-1	0.0	9519.5	7016.2	6153.4	5364.0	4486.7	3639.6	3025.4	2244.3	766.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-44	200-PO-1	0.0	5926.5	5881.4	5863.5	5218.8	4468.6	3736.6	3198.9	2497.4	1032.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	1424.0	19459.0	8777.9	6946.6	5474.0	4304.3	3380.7	2787.5	2090.4	826.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-1	200-PO-1	46621.7	11325.3	5476.9	3648.9	2708.4	2050.1	1569.1	1267.0	926.2	499.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-14	200-PO-1	64454.0	30031.5	17649.7	12796.8	9637.9	7272.3	5484.6	4433.0	3241.7	1342.7	940.2	676.7	481.2	0.0	0.0	0.0	0.0
299-E17-22	200-PO-1	44031.1	7128.8	2209.0	1038.9	627.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-23	200-PO-1	31953.7	6494.8	1095.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-25	200-PO-1	44004.1	11827.2	2031.2	696.1	589.6	496.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-16	200-PO-1	39104.3	7400.7	3141.6	2000.9	1496.6	1144.6	875.4	707.5	518.5	478.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-23	200-PO-1	41627.8	10452.9	4625.0	4161.4	3764.0	3262.0	2744.1	2358.6	1861.8	1014.6	912.2	766.7	620.7	490.3	0.0	0.0	0.0
299-E25-19	200-PO-1	5233.5	3004.5	543.4	0.0	0.0	0.0	0.0	0.0	0.0	586.0	566.0	480.1	0.0	0.0	0.0	0.0	0.0
299-E25-20	200-PO-1	4774.6	3151.4	530.2	0.0	0.0	0.0	0.0	0.0	0.0	517.3	506.6	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-3	200-PO-1	10859.9	3257.1	1029.3	722.4	582.8	474.8	0.0	0.0	0.0	452.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-36	200-PO-1	28734.9	9422.9	4630.6	4516.3	4083.1	3517.2	2948.0	2534.0	2011.9	1039.3	924.9	785.7	643.4	515.2	0.0	0.0	0.0
699-37-47A	200-PO-1	38640.1	14327.6	8668.6	5336.0	3283.6	2060.2	1338.7	979.3	802.9	589.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-20	200-PO-1	13516.9	1915.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-34	200-PO-1	4356.9	6820.8	1792.8	1689.0	1573.0	1456.2	1342.7	1256.0	1134.0	799.0	561.8	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-93	200-PO-1	11977.8	2066.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-4	200-PO-1	17807.0	7595.7	553.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	1424.0	19459.0	8777.9	6946.6	5474.0	4304.3	3380.7	2787.5	2090.4	826.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CMAX	200-PO-1	72712.0	38200.1	25353.5	18359.4	13285.8	9562.3	6871.5	5429.2	5248.7	6772.4	7475.4	7256.9	6568.5	5700.2	4815.3	4341.7	4530.6
299-E24-25	200-BP-5	33361.7	3396.0	1785.9	1600.0	1431.3	1286.0	1163.4	1080.7	979.1	777.6	685.4	625.6	568.2	506.4	0.0	0.0	0.0
299-E28-2	200-BP-5	63388.5	8225.8	5204.5	3417.9	2254.7	1527.9	1075.4	839.0	613.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-23	200-BP-5	65228.8	7795.8	4515.6	3394.8	3392.8	3385.2	3346.2	3289.1	3157.8	2498.0	1844.7	1365.7	1046.8	836.6	692.4	586.2	502.4
299-E28-24	200-BP-5	65039.4	7855.1	4567.3	3442.8	3473.9	3487.4	3461.0	3409.2	3279.7	2597.1	1911.6	1407.3	1071.6	851.2	700.7	591.0	505.0
299-E28-30	200-BP-5	387814.7	259513.2	201721.0	166302.9	150419.5	138925.3	127200.9	123228.2	119693.2	94703.3	68455.0	48174.9	33780.1	23832.0	16991.3	12265.3	8969.9
299-E29-54	200-BP-5	84374.3	24134.2	11829.5	8924.1	9234.5	9666.2	9965.7	10147.4	10327.4	11848.4	12100.9	11570.9	10690.0	9698.5	8723.2	7824.0	7023.5
299-E33-16	200-BP-5	574440.9	5056.6	2936.0	1785.6	1212.7	939.6	770.9	679.0	588.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-18	200-BP-5	434013.1	3356.9	1818.3	1088.0	729.3	558.7	454.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-1A	200-BP-5	328079.7	5772.3	3572.0	2209.5	1511.1	1175.1	966.8	853.1	740.2	525.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-2	200-BP-5	284191.9	5859.5	3653.1	2264.7	1549.7	1205.0	991.2	874.4	758.3	537.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-205	200-BP-5	360072.9	3227.7	1810.7	1097.9	743.1	573.8	469.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-26	200-BP-5	242428.1	912.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-3	200-BP-5	254624.5	6015.6	3772.4	2339.3	1600.4	1243.8	1022.4	901.5	781.3	552.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-31	200-BP-5	463112.9	4433.2	2593.8	1597.0	1093.7	854.4	706.9	626.8	547.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-32	200-BP-5	258835.9	1687.4	844.0	505.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-337	200-BP-5	270780.7	1333.5	503.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-339	200-BP-5	241333.8	1182.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E33-341	200-BP-5	249381.4	5796.7	3630.3	2258.7	1547.6	1204.1	991.0	874.6	758.8	537.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-342	200-BP-5	374735.2	5587.1	3423.9	2114.6	1446.1	1125.2	926.4	818.0	710.4	505.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-343	200-BP-5	390199.6	3150.6	1707.4	1022.0	684.9	524.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-345	200-BP-5	439277.7	3408.7	1851.4	1108.5	743.5	569.8	463.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-38	200-BP-5	344583.0	5529.7	3400.1	2105.2	1441.0	1121.7	923.9	816.0	708.9	504.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-4	200-BP-5	209364.7	6119.1	3865.9	2402.7	1644.6	1278.0	1050.4	925.9	802.1	566.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-41	200-BP-5	334070.1	2743.5	1463.4	872.9	582.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-42	200-BP-5	362647.3	3074.3	1728.0	1057.3	721.4	561.5	463.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-43	200-BP-5	215862.9	1110.8	477.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-44	200-BP-5	466417.9	4963.2	2946.0	1801.2	1226.1	951.4	781.5	689.0	597.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-47	200-BP-5	392802.3	2079.8	903.0	507.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-49	200-BP-5	217445.9	981.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-5	200-BP-5	322005.3	5539.3	3418.3	2119.8	1451.7	1130.2	930.9	822.2	714.3	507.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-7	200-BP-5	187088.2	6079.6	3853.5	2401.9	1645.7	1279.5	1052.0	927.7	803.9	567.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-9	200-BP-5	472315.4	5021.3	2990.2	1834.4	1252.0	974.1	802.3	708.7	616.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-49-57A	200-BP-5	76625.9	1518.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-50-56	200-BP-5	28854.0	26566.9	23011.9	19238.5	16335.2	14056.1	12241.3	11038.7	9563.7	6383.6	4531.8	3293.7	2406.8	1755.0	1273.7	919.4	660.3
699-50-59	200-BP-5	20410.7	2071.0	3331.0	2457.2	1478.6	799.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-55C	200-BP-5	109717.7	64210.0	57147.7	52228.1	47805.2	43693.7	39892.8	37073.4	33200.1	23001.9	16057.6	11346.1	8116.0	5872.4	4293.6	3169.0	2359.2
699-55-57	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-57-59	200-BP-5	0.0	13314.6	14340.1	13255.9	11550.3	11087.7	10313.0	9471.5	8068.6	4032.7	1800.1	765.0	0.0	0.0	0.0	0.0	0.0
699-60-60	200-BP-5	0.0	0.0	1001.1	2059.0	3197.8	4225.8	5004.3	5407.2	5653.2	4570.6	2747.9	1445.4	707.8	0.0	0.0	0.0	0.0
699-61-62	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	484.5	720.1	1347.8	1414.3	1254.0	945.3	624.0	0.0	0.0	0.0
699-53-47B	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-48A	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-54-49	200-BP-5	48449.2	39683.1	33021.9	27906.0	23568.8	19839.4	16654.7	14456.2	11667.1	5669.2	2795.2	1454.5	956.9	729.0	616.0	555.9	520.4
299-E26-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-27	200-BP-5	72278.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-10	200-BP-5	141199.1	641.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-6	200-BP-5	58412.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-7	200-BP-5	69509.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-9	200-BP-5	109815.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-29	200-BP-5	135530.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-34	200-BP-5	175288.0	1444.0	738.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-35	200-BP-5	211718.4	760.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-10	200-BP-5	22985.7	4400.1	500.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-12	200-BP-5	171647.2	1776.1	477.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-9	200-BP-5	247519.3	615.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-13	200-BP-5	15669.4	9465.7	851.0	547.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E27-14	200-BP-5	25708.6	9985.4	822.6	520.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-155	200-BP-5	13816.8	7203.4	713.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-21	200-BP-5	19608.0	7151.5	658.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-22	200-BP-5	9970.9	6111.2	584.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-23	200-BP-5	15808.2	8363.4	768.8	485.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-24	200-BP-5	24427.4	8053.5	700.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-4	200-BP-5	14539.9	9433.8	868.4	562.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

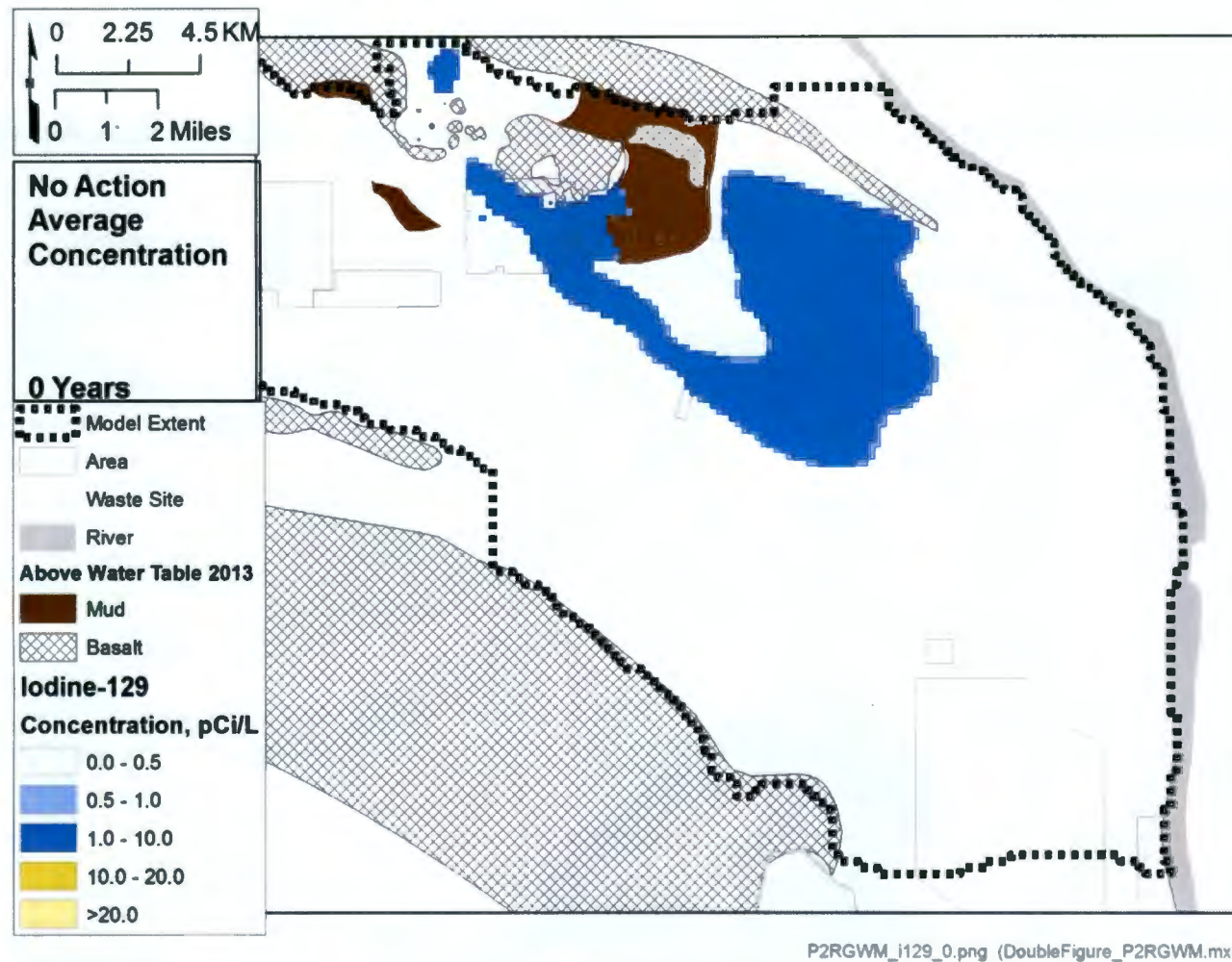


Figure B-27 - Plan view contours of the iodine-129 plume at simulation time 0 years based on the base case simulation using average concentration initial conditions

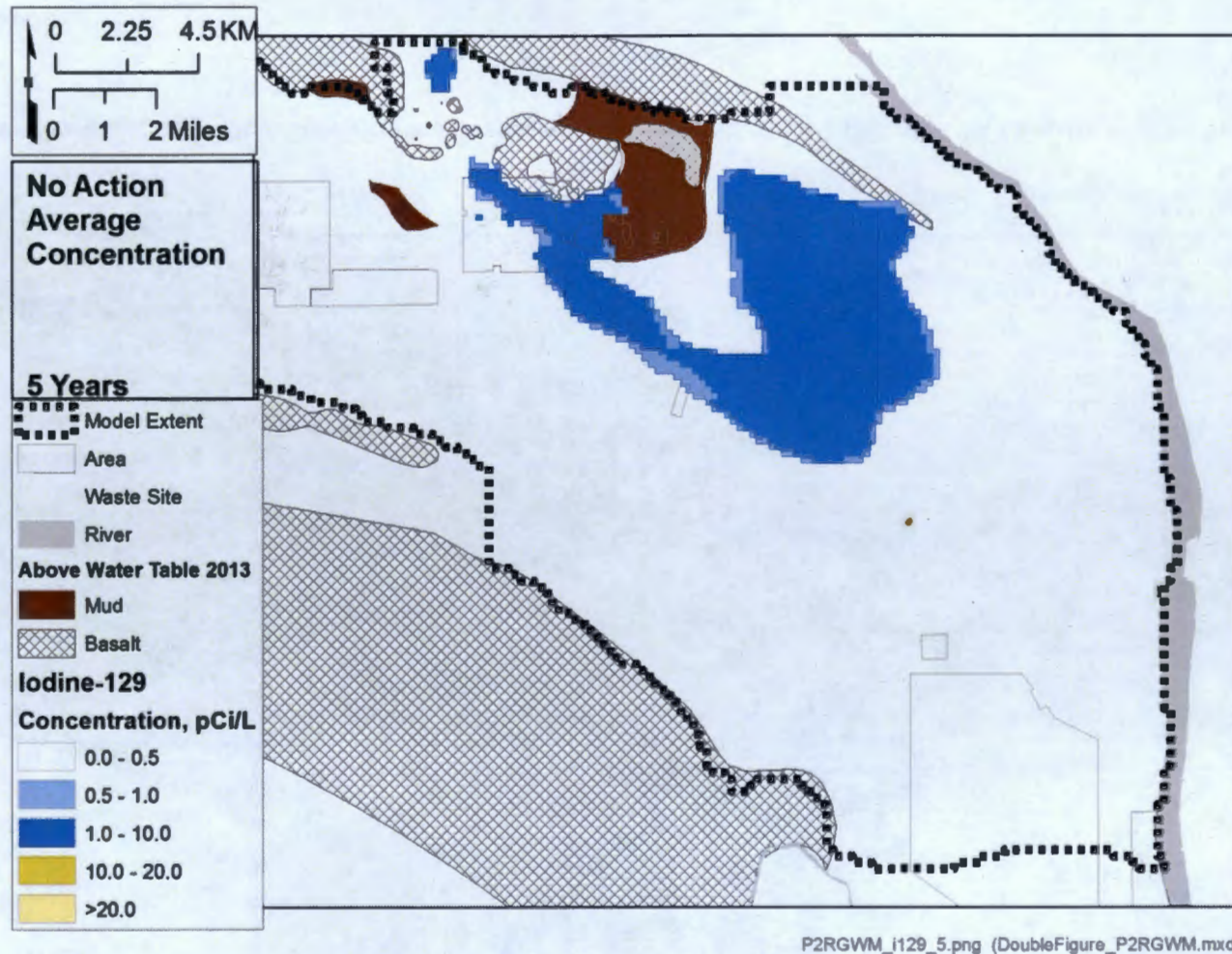


Figure B-28 - Plan view contours of the iodine-129 plume at simulation time 5 years based on the base case simulation using average concentration initial conditions

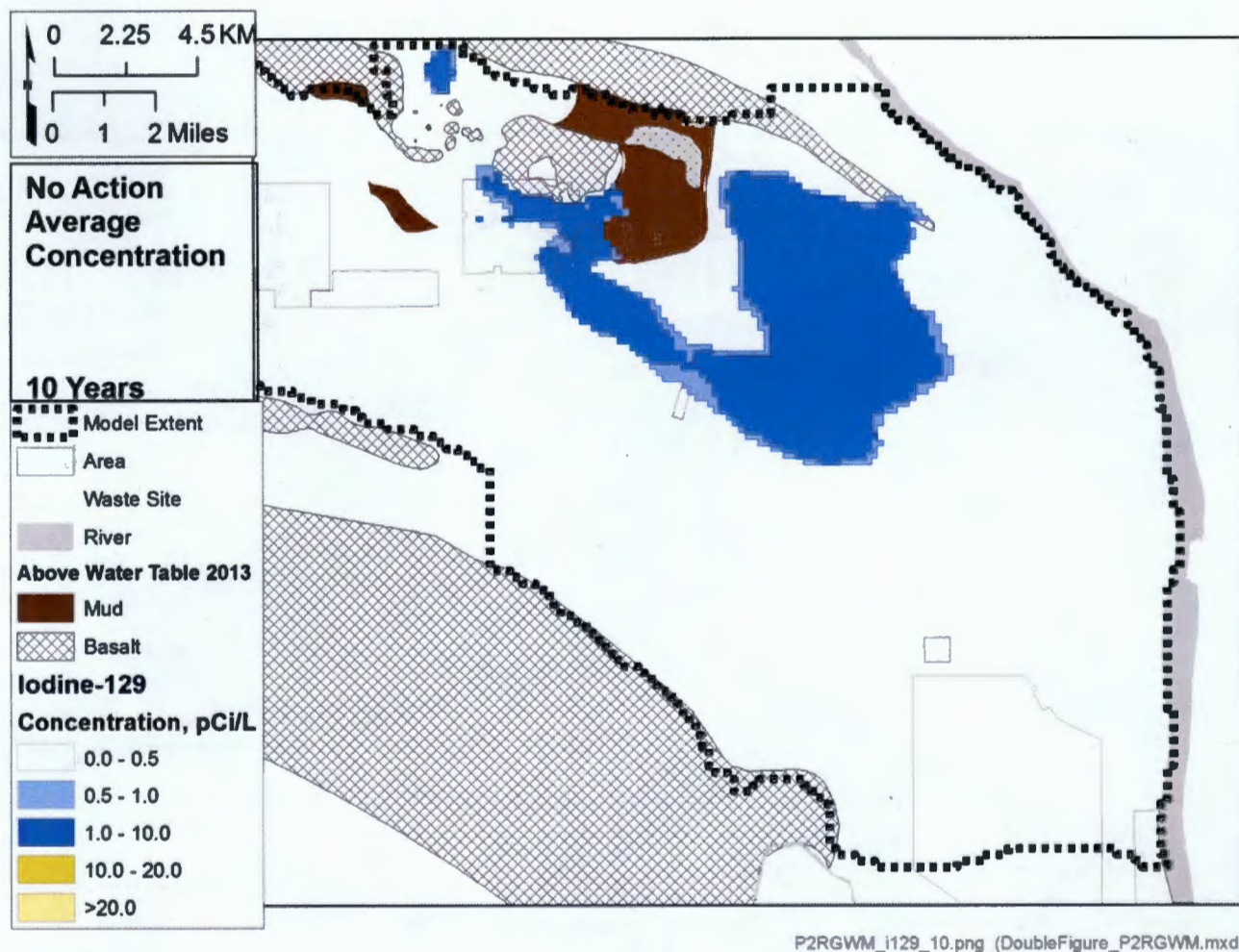


Figure B-29 - Plan view contours of the iodine-129 plume at simulation time 10 years based on the base case simulation using average concentration initial conditions

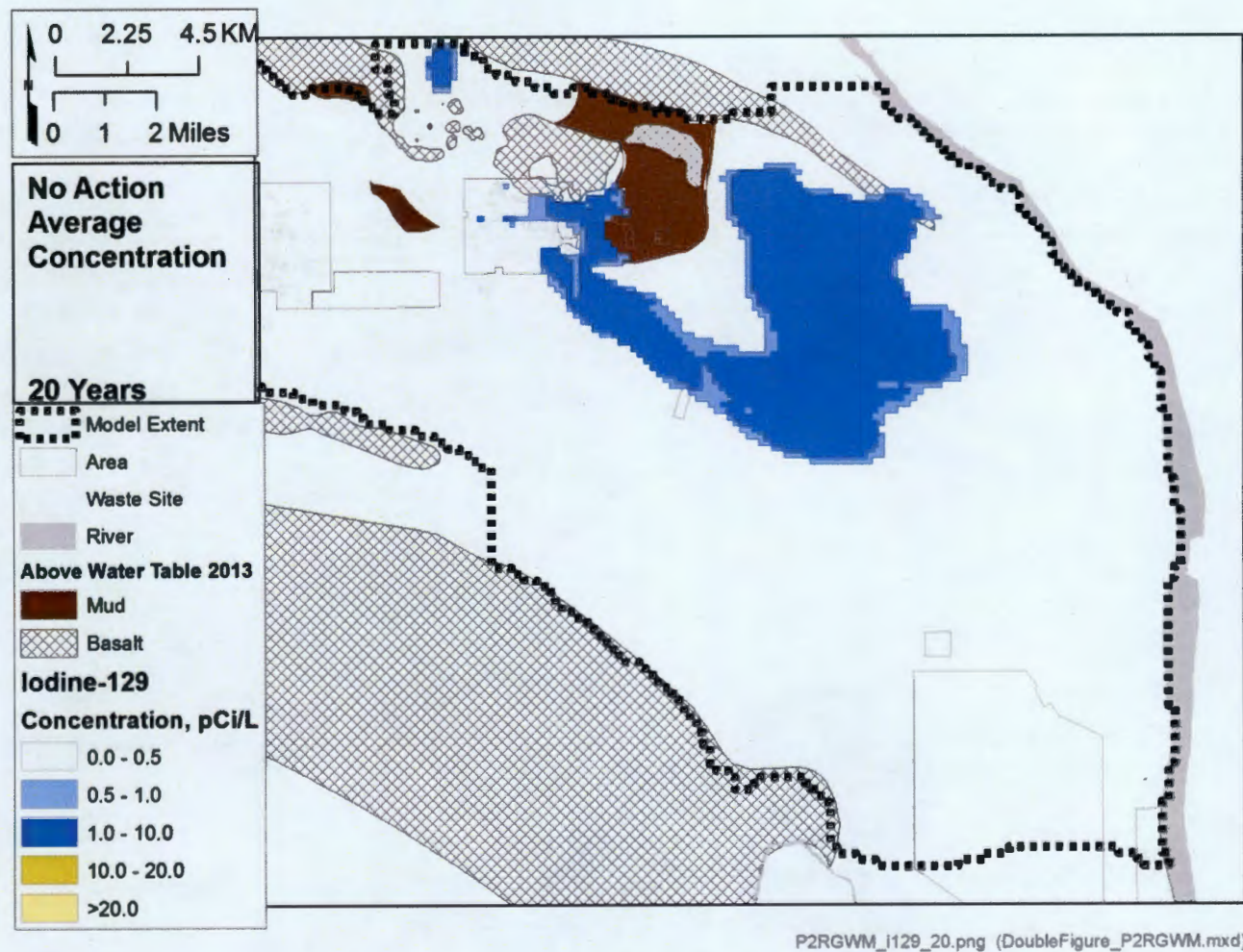


Figure B-30 - Plan view contours of the iodine-129 plume at simulation time 20 years based on the base case simulation using average concentration initial conditions

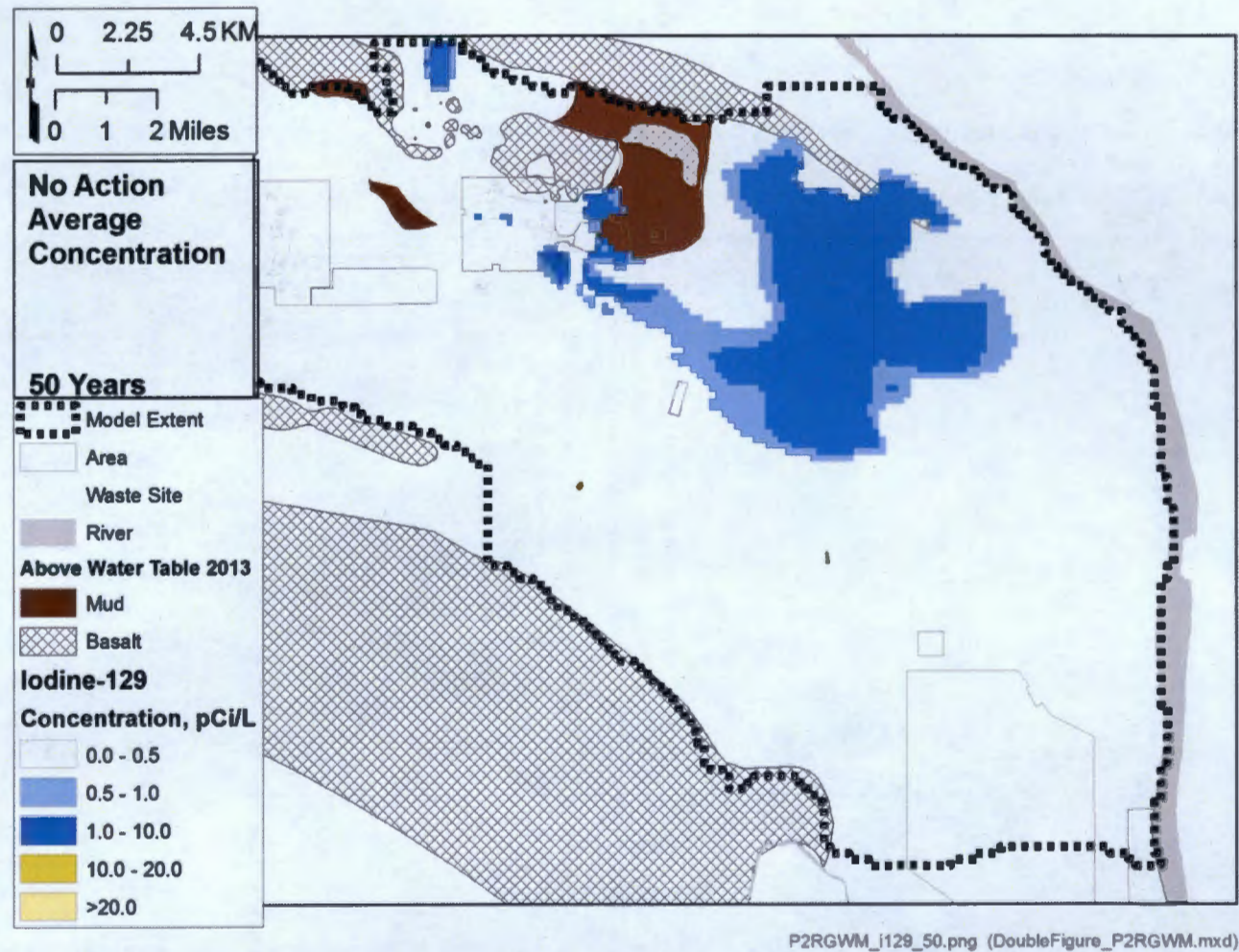


Figure B-31 - Plan view contours of the iodine-129 plume at simulation time 50 years based on the base case simulation using average concentration initial conditions

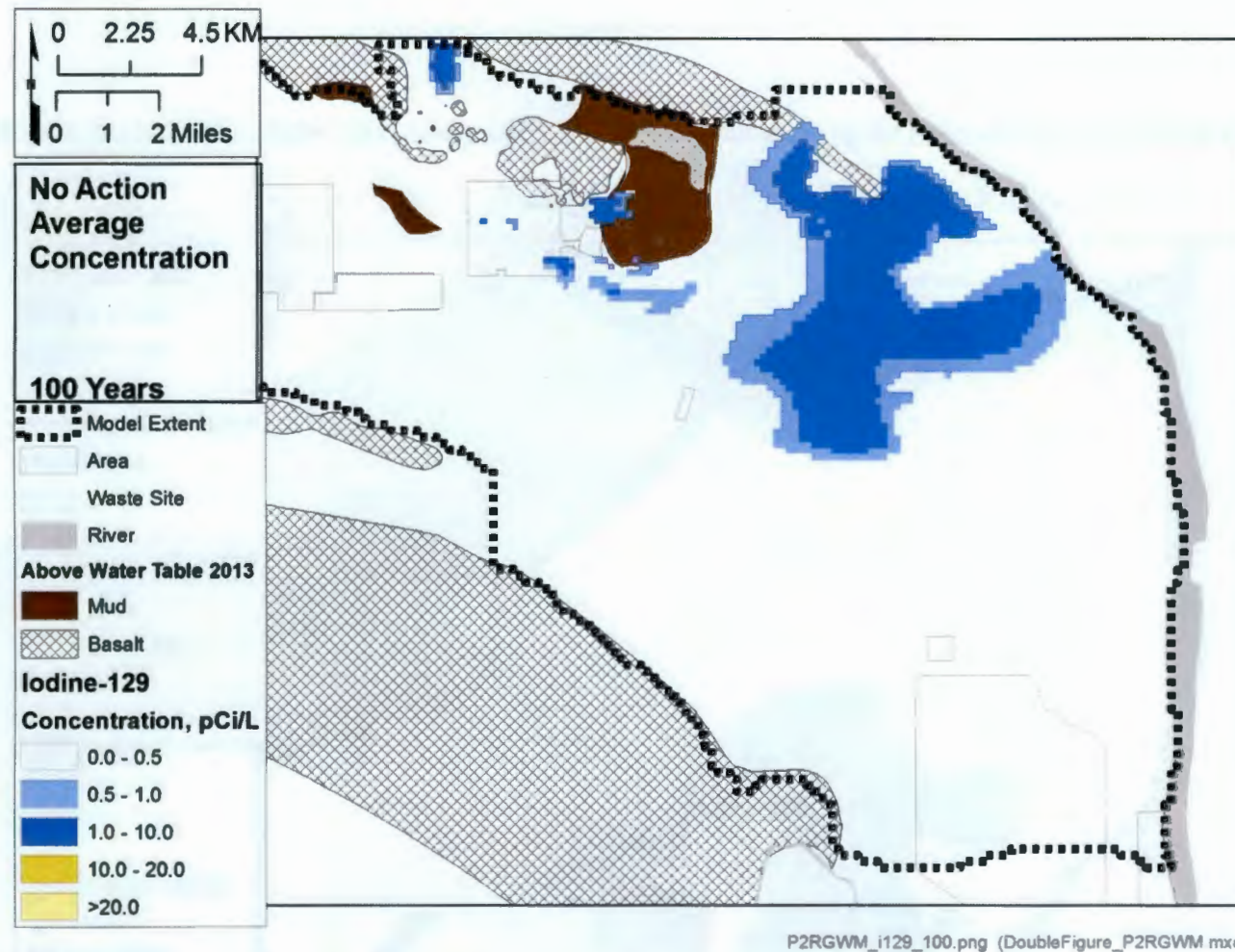


Figure B-32 - Plan view contours of the iodine-129 plume at simulation time 100 years based on the base case simulation using average concentration initial conditions

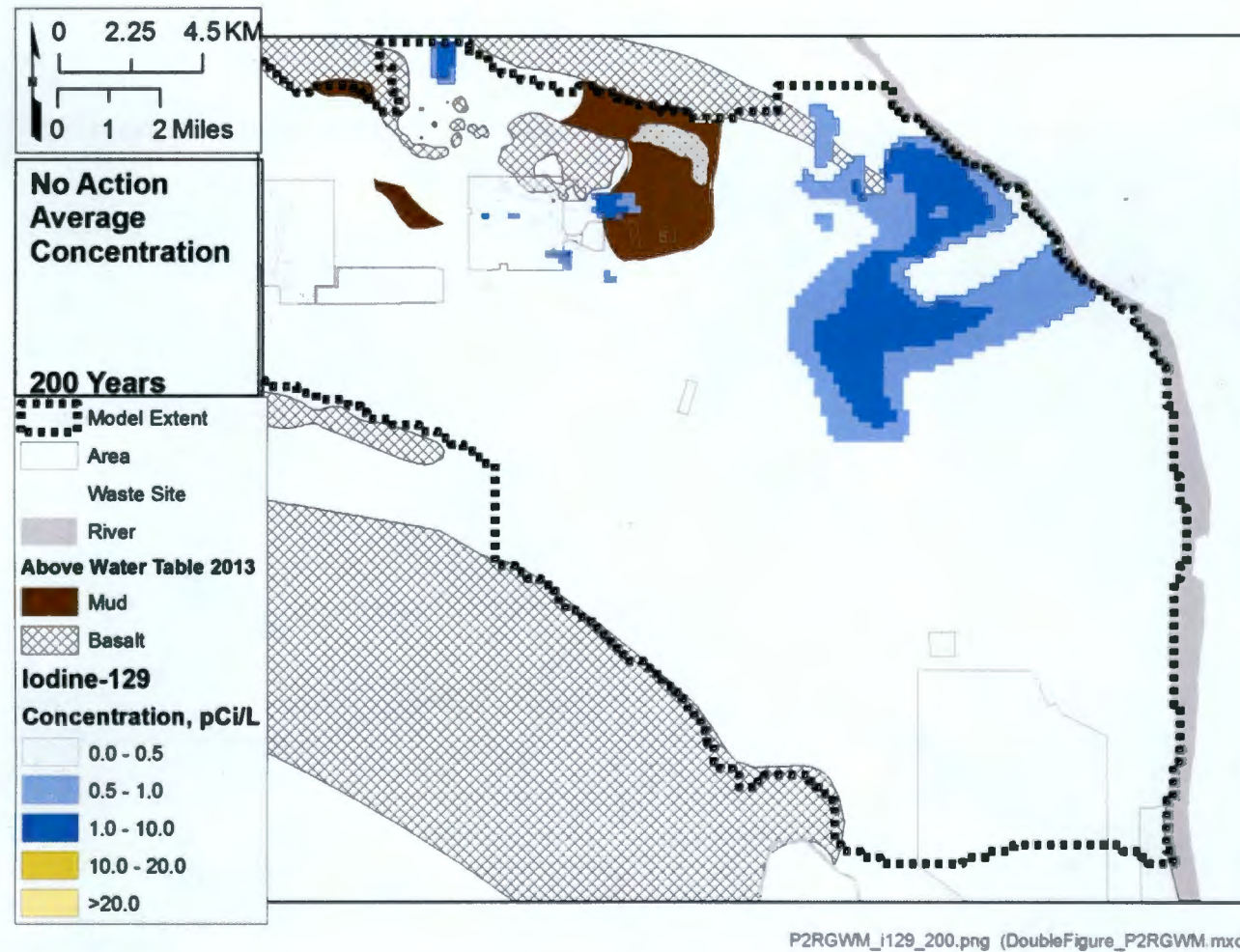


Figure B-33 - Plan view contours of the iodine-129 plume at simulation time 200 years based on the base case simulation using average concentration initial conditions

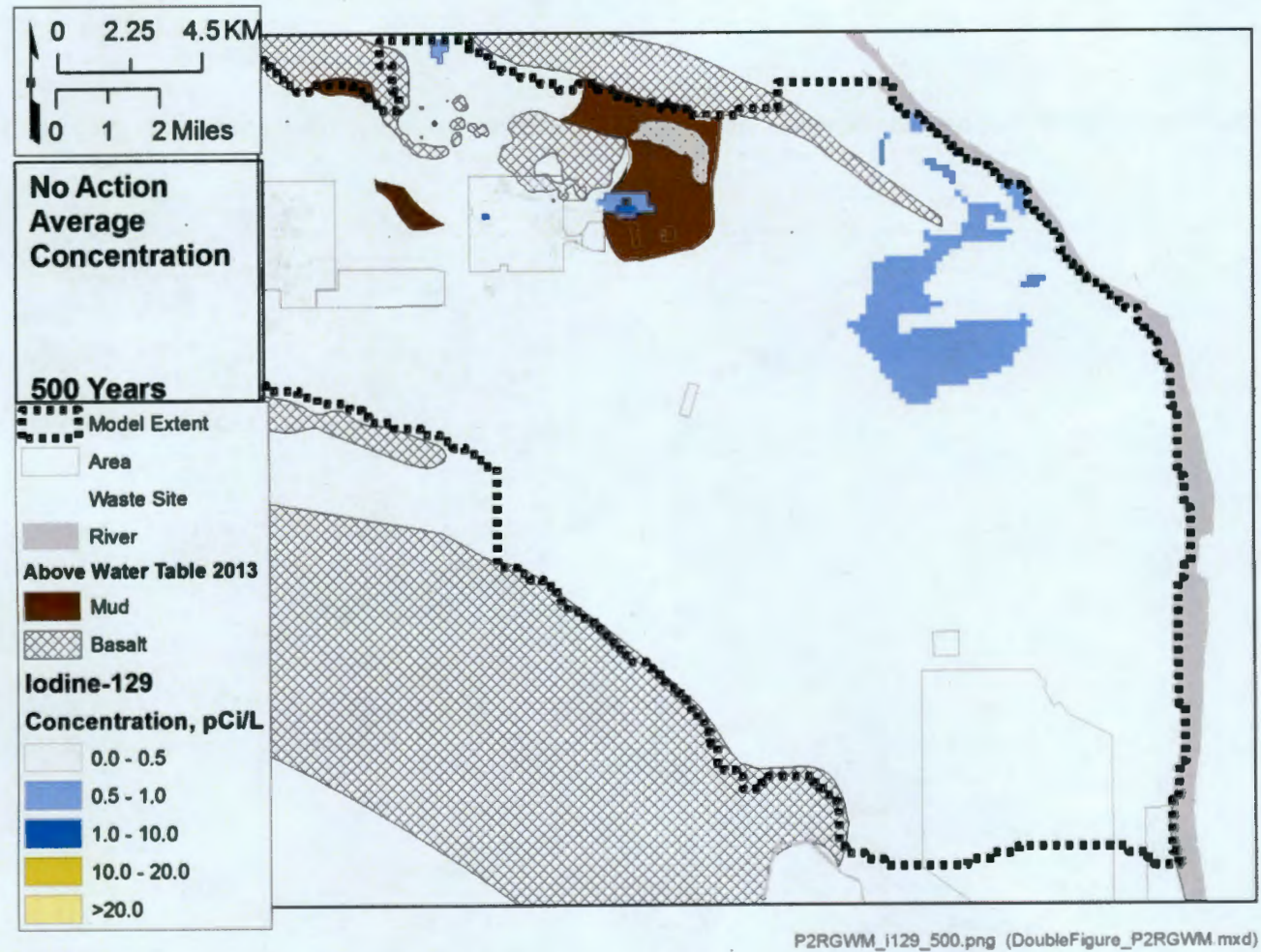


Figure B-34 - Plan view contours of the iodine-129 plume at simulation time 500 years based on the base case simulation using average concentration initial conditions

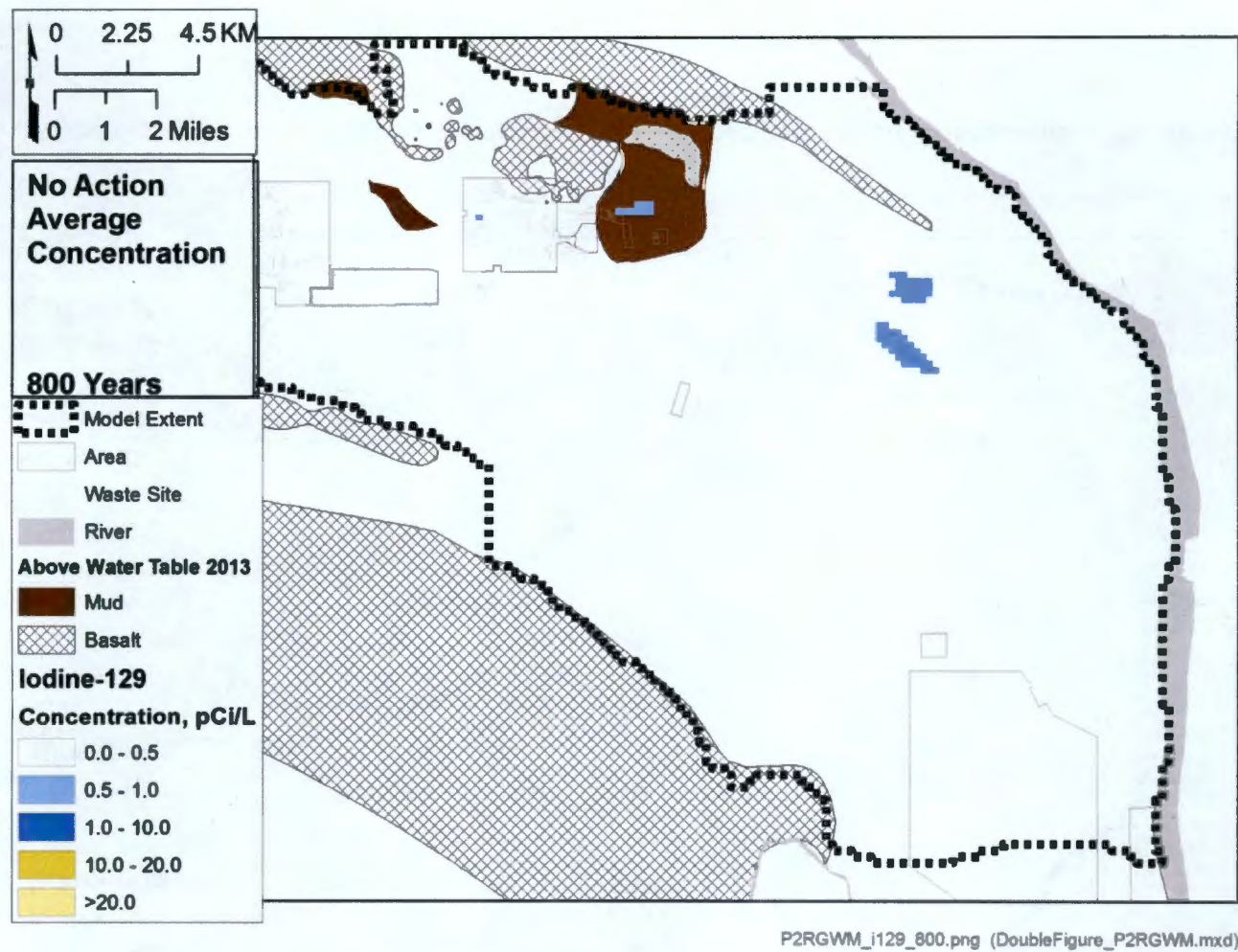


Figure B-35 - Plan view contours of the iodine-129 plume at simulation time 800 years based on the base case simulation using average concentration initial conditions

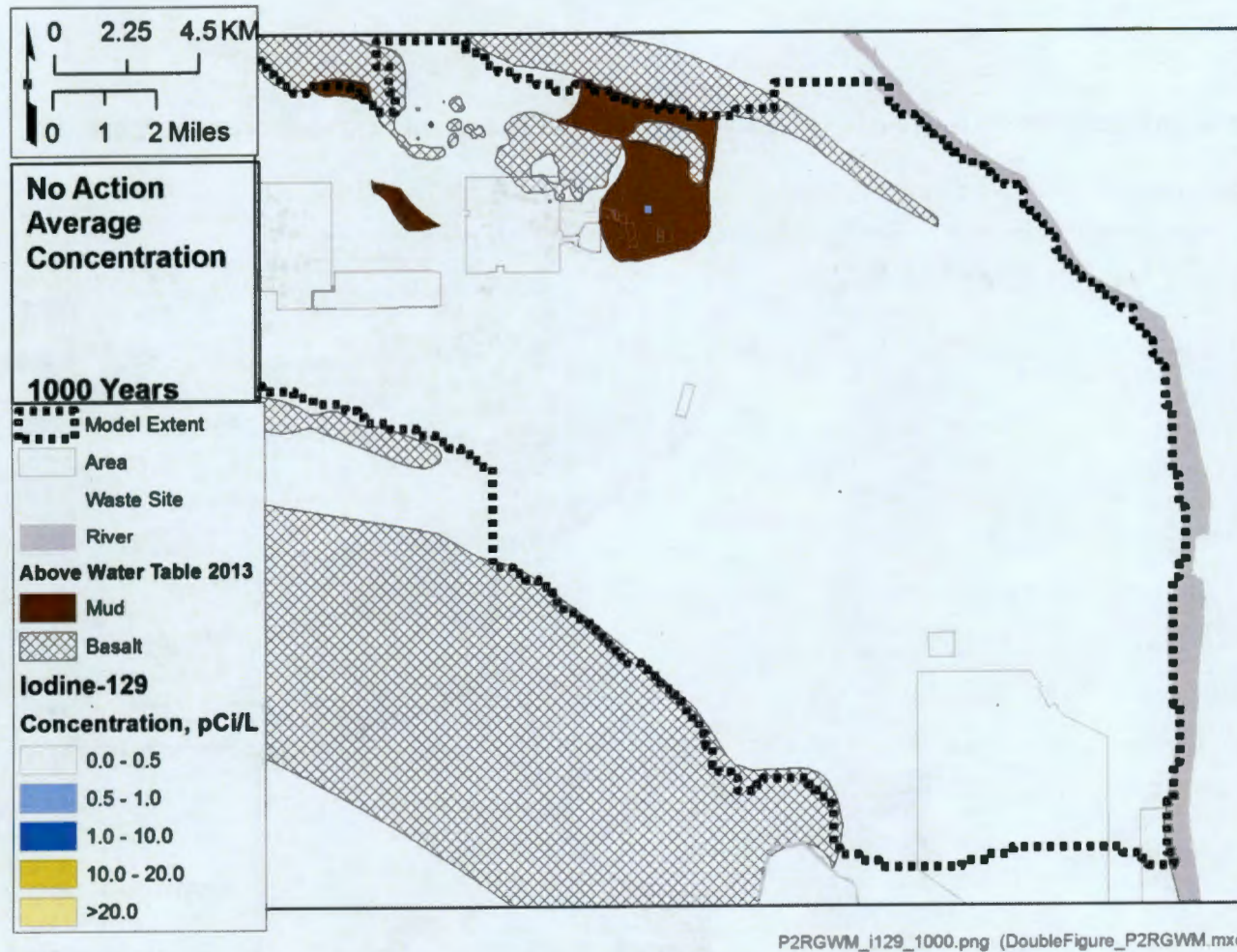


Figure B-36 - Plan view contours of the iodine-129 plume at simulation time 1000 years based on the base case simulation using average concentration initial conditions

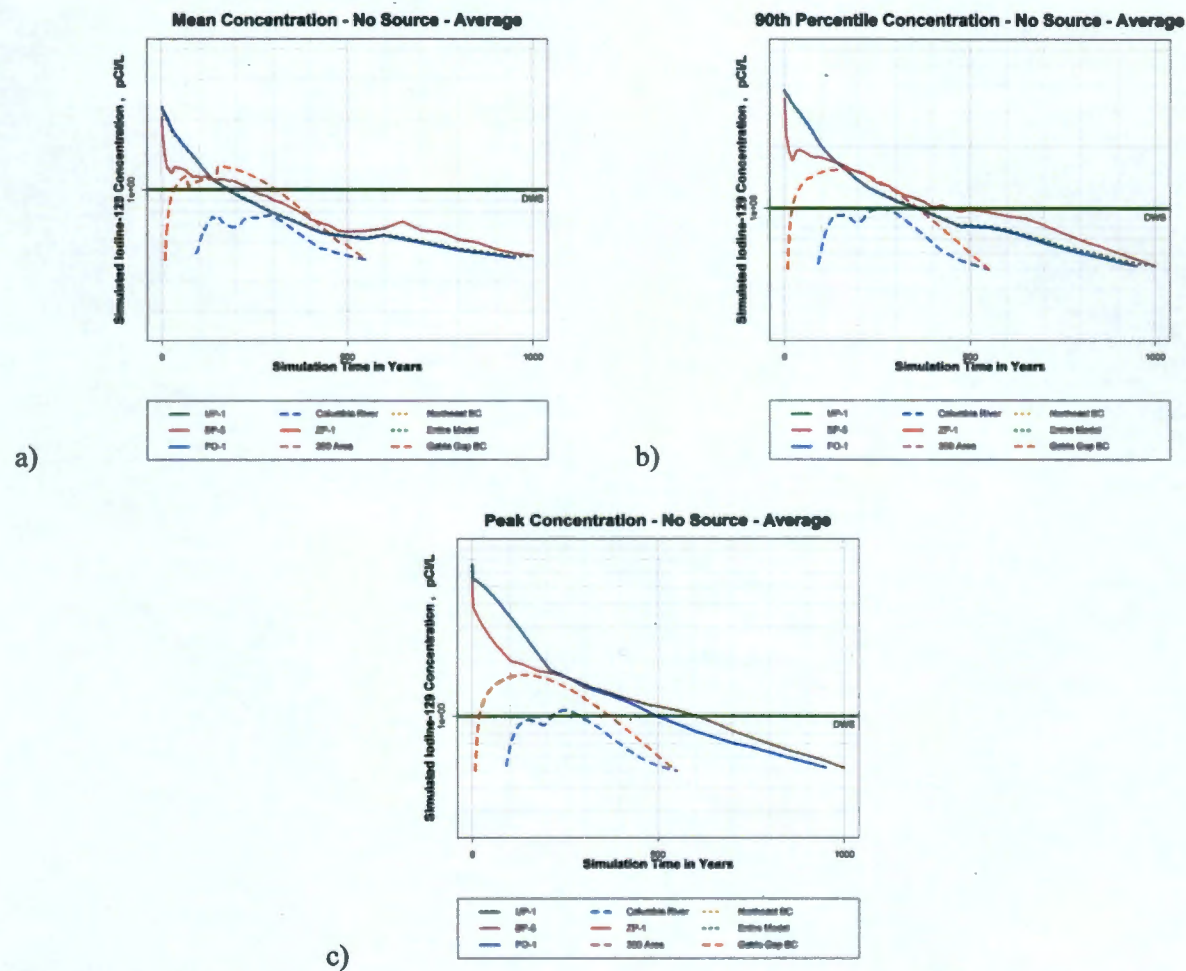


Figure B-37 - Statistical summary of simulated concentration within subregions of the model domain for the iodine-129 plume for the base case simulation using average concentration initial conditions.

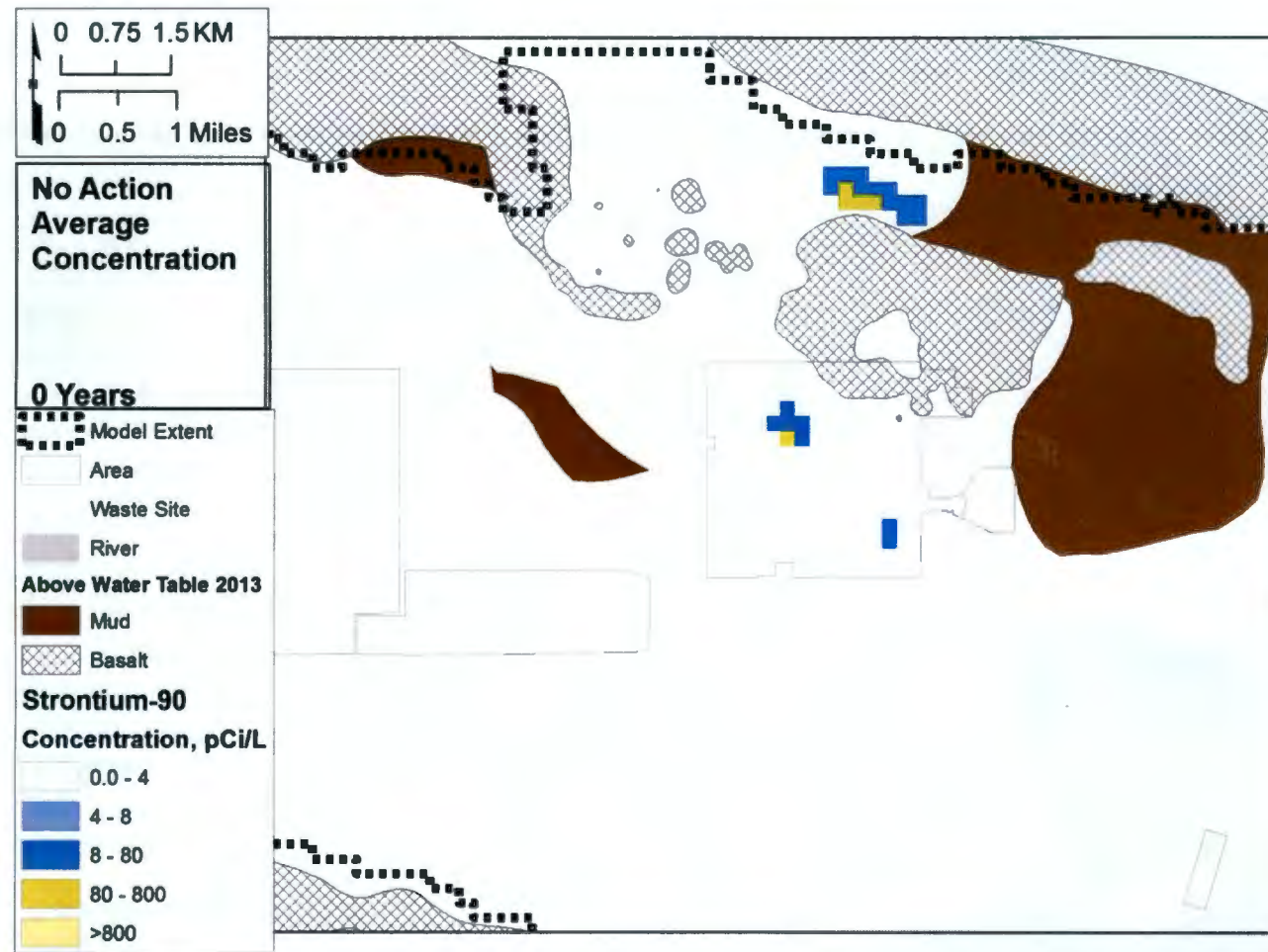
Table 4 - Summary of simulated concentrations (pCi/L) at selected well locations within the model domain for the iodine-129 base case simulation using the average concentration condition.

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
699-42-42B	200-PO-1	2.1	1.7	1.4	1.3	1.1	1.1	1.0	0.9	0.9	0.6	0.3	0.2	0.1	0.1	0.0	0.0	0.0
699-43-44	200-PO-1	3.6	2.5	2.2	2.0	1.8	1.7	1.5	1.4	1.2	0.7	0.5	0.3	0.2	0.1	0.1	0.0	0.0
699-43-45	200-PO-1	3.6	1.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-PO-1	1.9	1.4	1.0	0.7	0.5	0.3	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-1	200-PO-1	2.0	0.8	0.5	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-14	200-PO-1	3.8	2.5	1.7	1.3	1.0	0.8	0.7	0.6	0.5	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.0
299-E17-22	200-PO-1	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-23	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-25	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-16	200-PO-1	2.2	0.5	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-23	200-PO-1	2.5	0.9	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0
299-E25-19	200-PO-1	2.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
299-E25-20	200-PO-1	2.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
299-E25-3	200-PO-1	1.9	0.3	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-36	200-PO-1	2.5	1.0	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
699-37-47A	200-PO-1	3.4	2.3	1.6	1.2	1.0	0.8	0.6	0.6	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0
299-E24-20	200-PO-1	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-34	200-PO-1	2.9	0.3	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-93	200-PO-1	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-4	200-PO-1	3.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	3.6	1.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
CMAX	200-PO-1	5.5	5.1	4.6	4.0	3.5	3.0	2.5	2.2	1.9	1.4	1.2	1.0	0.8	0.7	0.6	0.6	0.5
299-E24-25	200-BP-5	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-2	200-BP-5	1.7	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-23	200-BP-5	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-24	200-BP-5	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-30	200-BP-5	2.4	1.9	1.6	1.4	1.2	1.1	1.0	0.9	0.9	0.8	0.7	0.7	0.6	0.5	0.5	0.4	0.3
299-E29-54	200-BP-5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-16	200-BP-5	2.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-18	200-BP-5	3.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-1A	200-BP-5	2.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-2	200-BP-5	2.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-205	200-BP-5	3.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-26	200-BP-5	3.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-3	200-BP-5	1.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-31	200-BP-5	3.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-32	200-BP-5	2.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-337	200-BP-5	3.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-339	200-BP-5	3.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E33-341	200-BP-5	2.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-342	200-BP-5	2.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-343	200-BP-5	3.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-345	200-BP-5	3.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-38	200-BP-5	2.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-4	200-BP-5	1.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-41	200-BP-5	3.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-42	200-BP-5	3.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-43	200-BP-5	2.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-44	200-BP-5	2.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-47	200-BP-5	3.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-49	200-BP-5	3.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-5	200-BP-5	2.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-7	200-BP-5	1.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-9	200-BP-5	2.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-BP-5	1.9	1.4	1.0	0.7	0.5	0.3	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
699-49-57A	200-BP-5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-50-56	200-BP-5	0.0	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
699-50-59	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-55C	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-55-57	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-57-59	200-BP-5	2.1	2.0	1.9	1.8	1.6	1.5	1.4	1.3	1.2	0.8	0.6	0.4	0.3	0.2	0.1	0.1	0.0
699-60-60	200-BP-5	0.0	0.6	0.8	0.9	1.0	1.0	1.0	1.0	1.0	0.9	0.7	0.5	0.4	0.3	0.2	0.1	0.1
699-61-62	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
699-53-47B	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-48A	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-54-49	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-27	200-BP-5	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-10	200-BP-5	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-6	200-BP-5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-7	200-BP-5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-9	200-BP-5	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-29	200-BP-5	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-34	200-BP-5	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-35	200-BP-5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-10	200-BP-5	0.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-12	200-BP-5	2.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-9	200-BP-5	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-13	200-BP-5	3.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E27-14	200-BP-5	4.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-155	200-BP-5	3.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-21	200-BP-5	3.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-22	200-BP-5	3.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-23	200-BP-5	3.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-24	200-BP-5	3.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-4	200-BP-5	3.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



P2RGWM_sr90_0.png (DoubleFigure_P2RGWM.mxd)

Figure B-38 - Plan view contours of the strontium-90 plume at simulation time 0 years based on the base case simulation using average concentration initial conditions

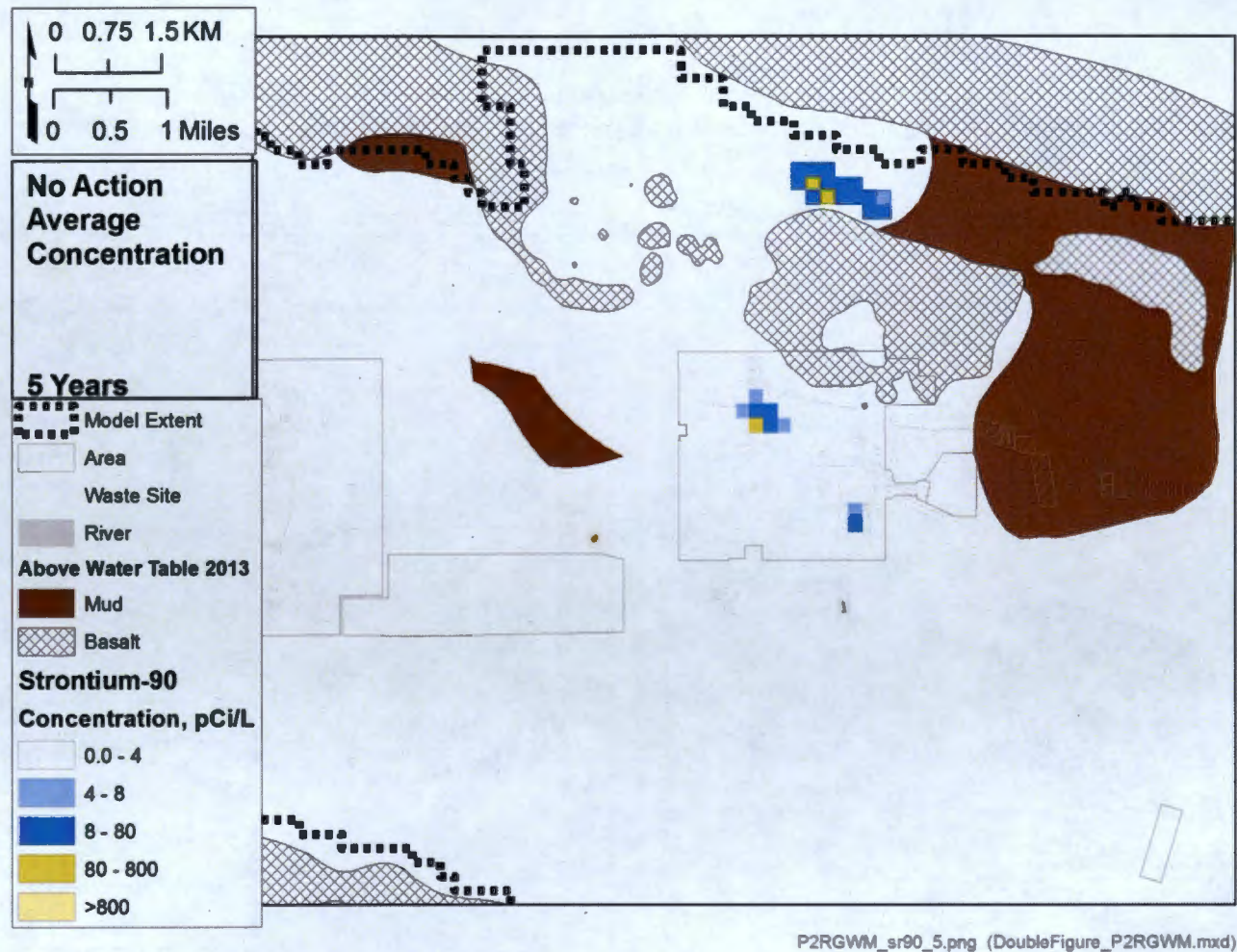


Figure B-39 - Plan view contours of the strontium-90 plume at simulation time 5 years based on the base case simulation using average concentration initial conditions

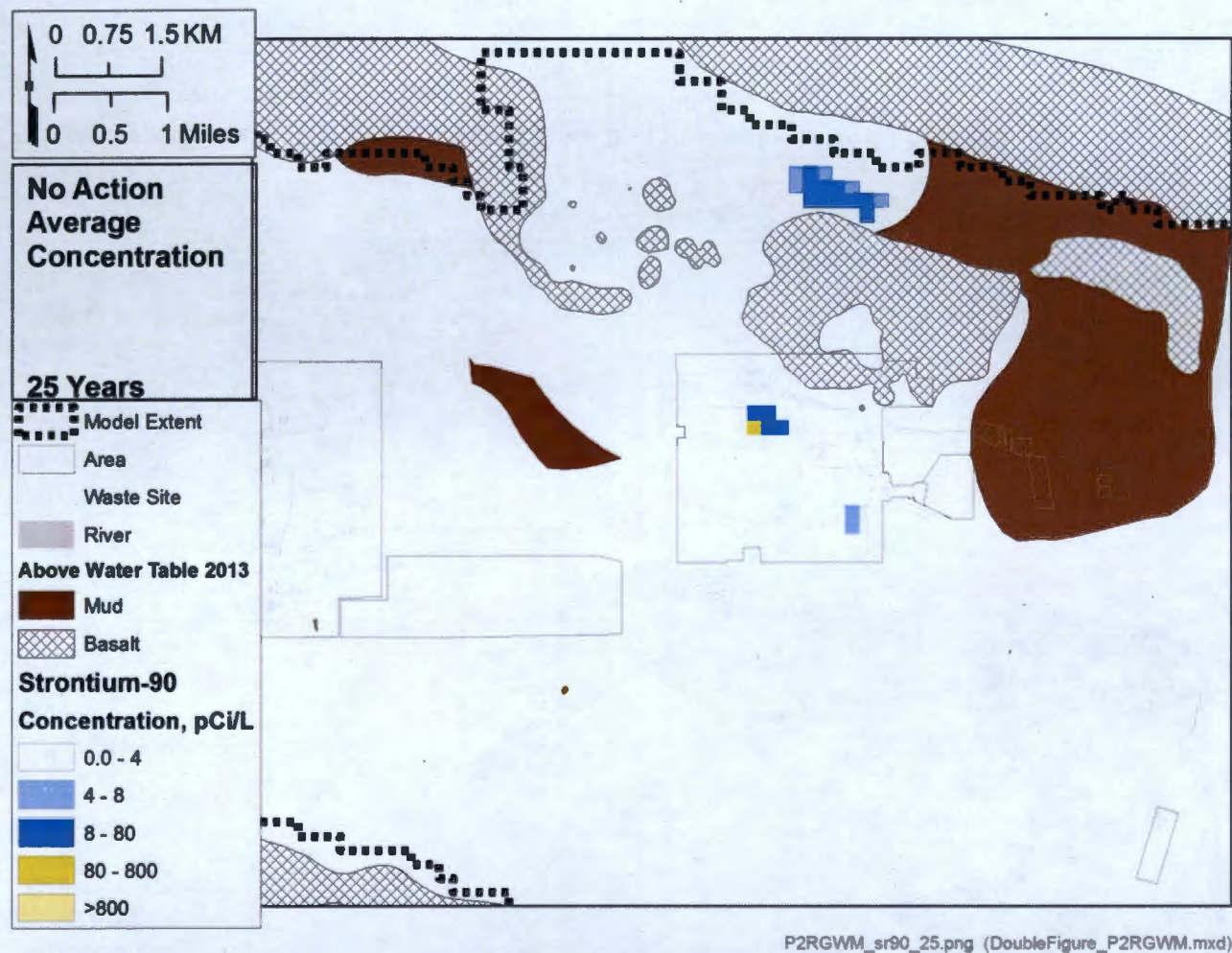


Figure B-40 - Plan view contours of the strontium-90 plume at simulation time 25 years based on the base case simulation using average concentration initial conditions

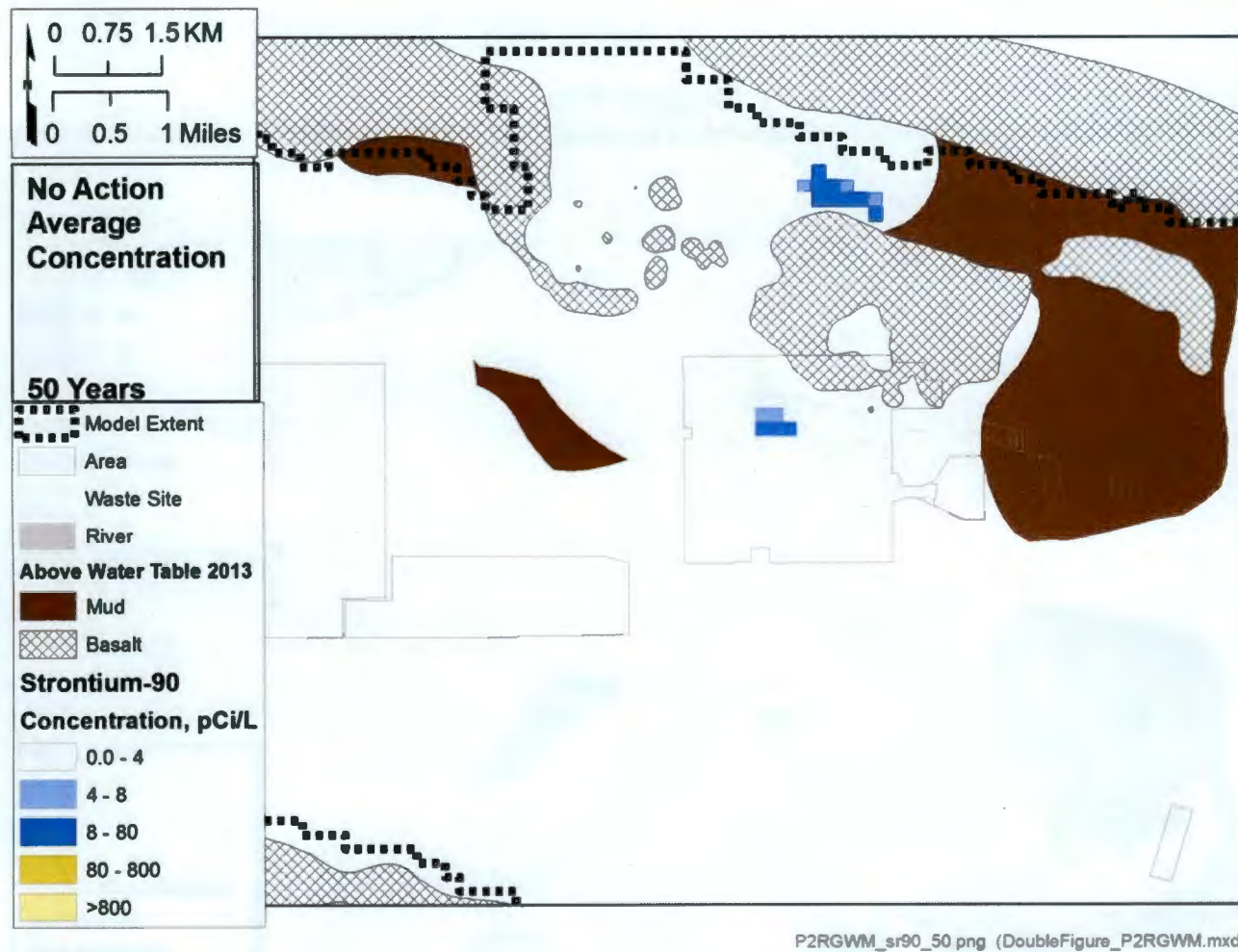
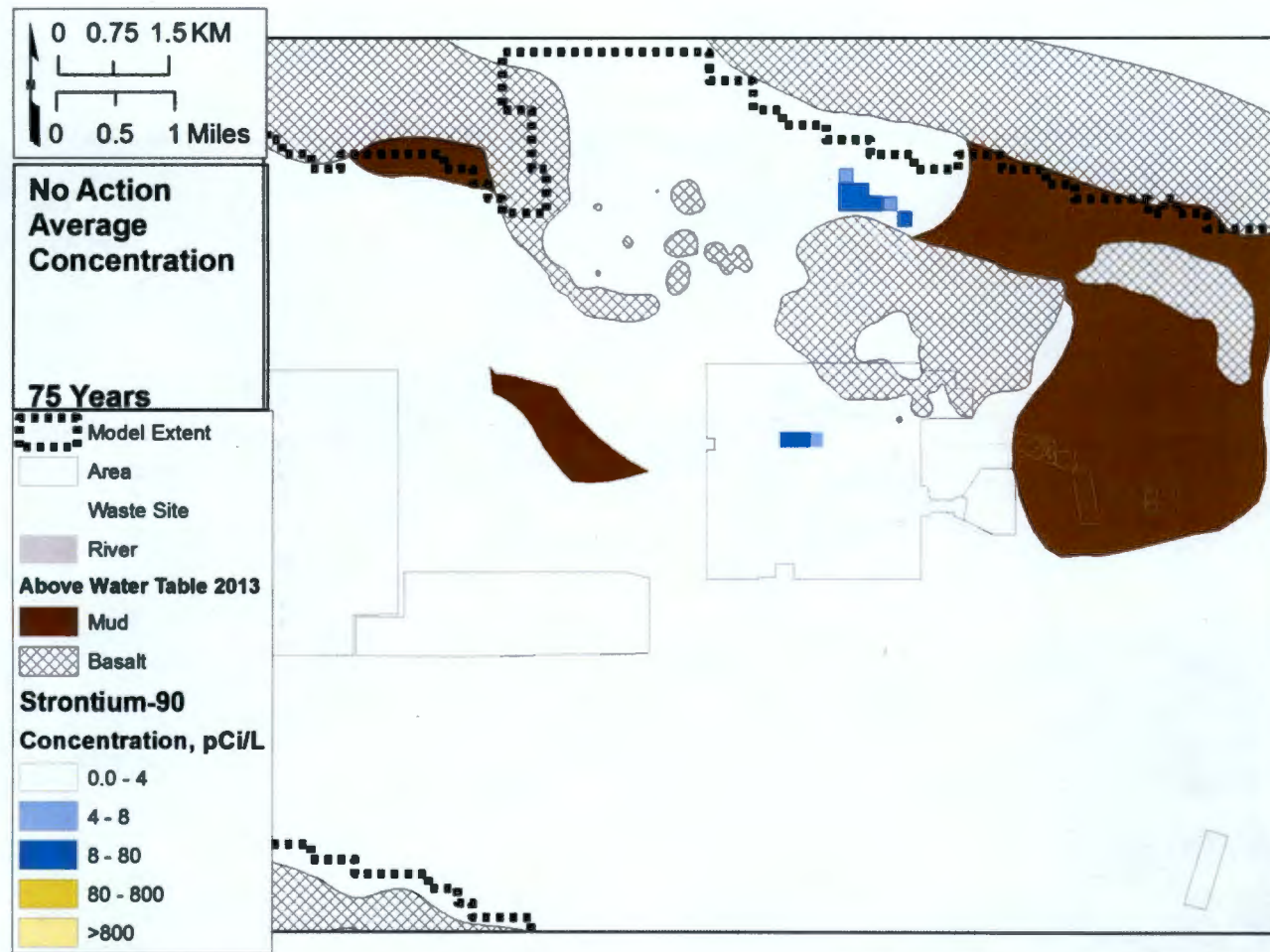
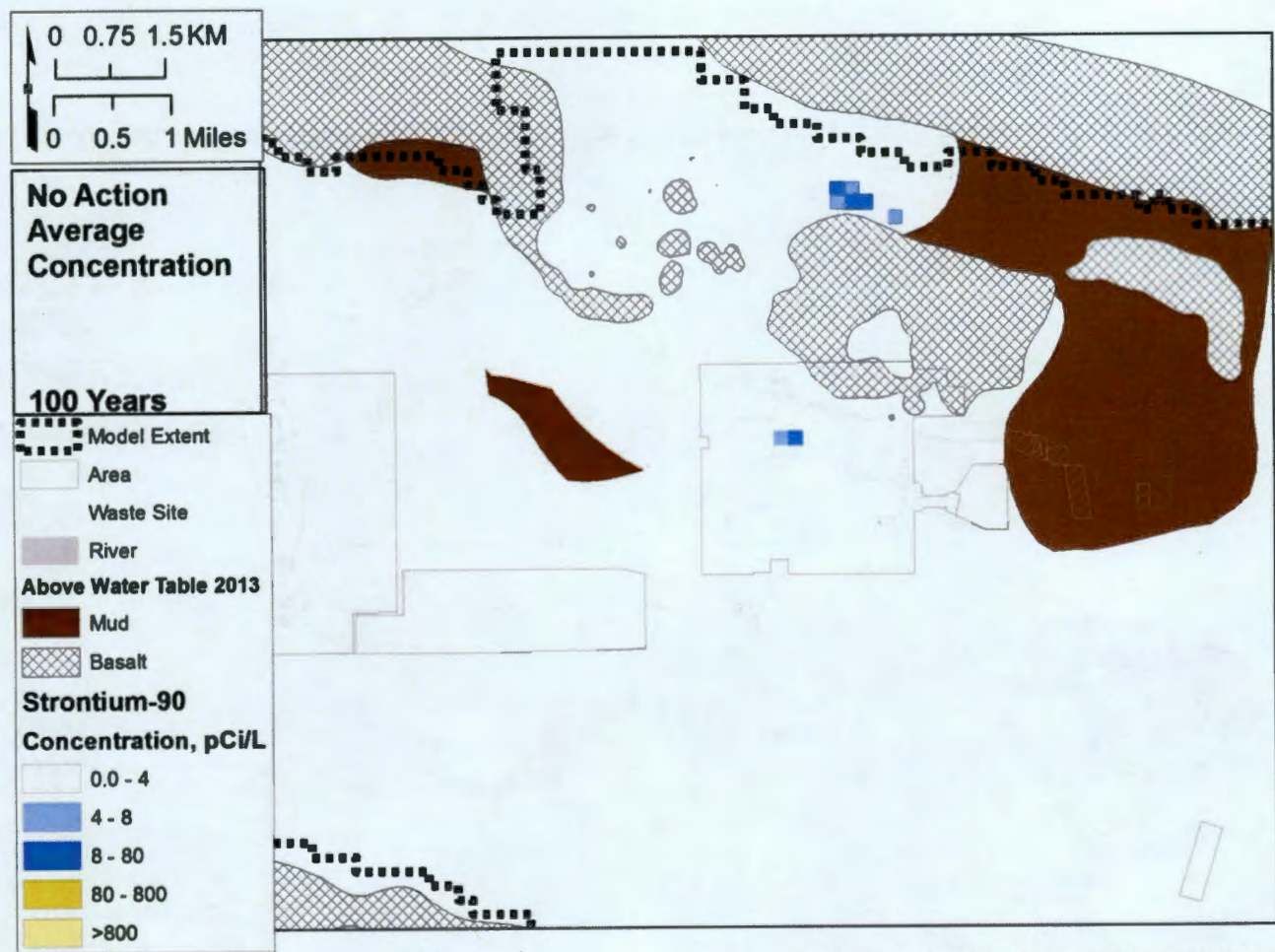


Figure B-41 - Plan view contours of the strontium-90 plume at simulation time 50 years based on the base case simulation using average concentration initial conditions



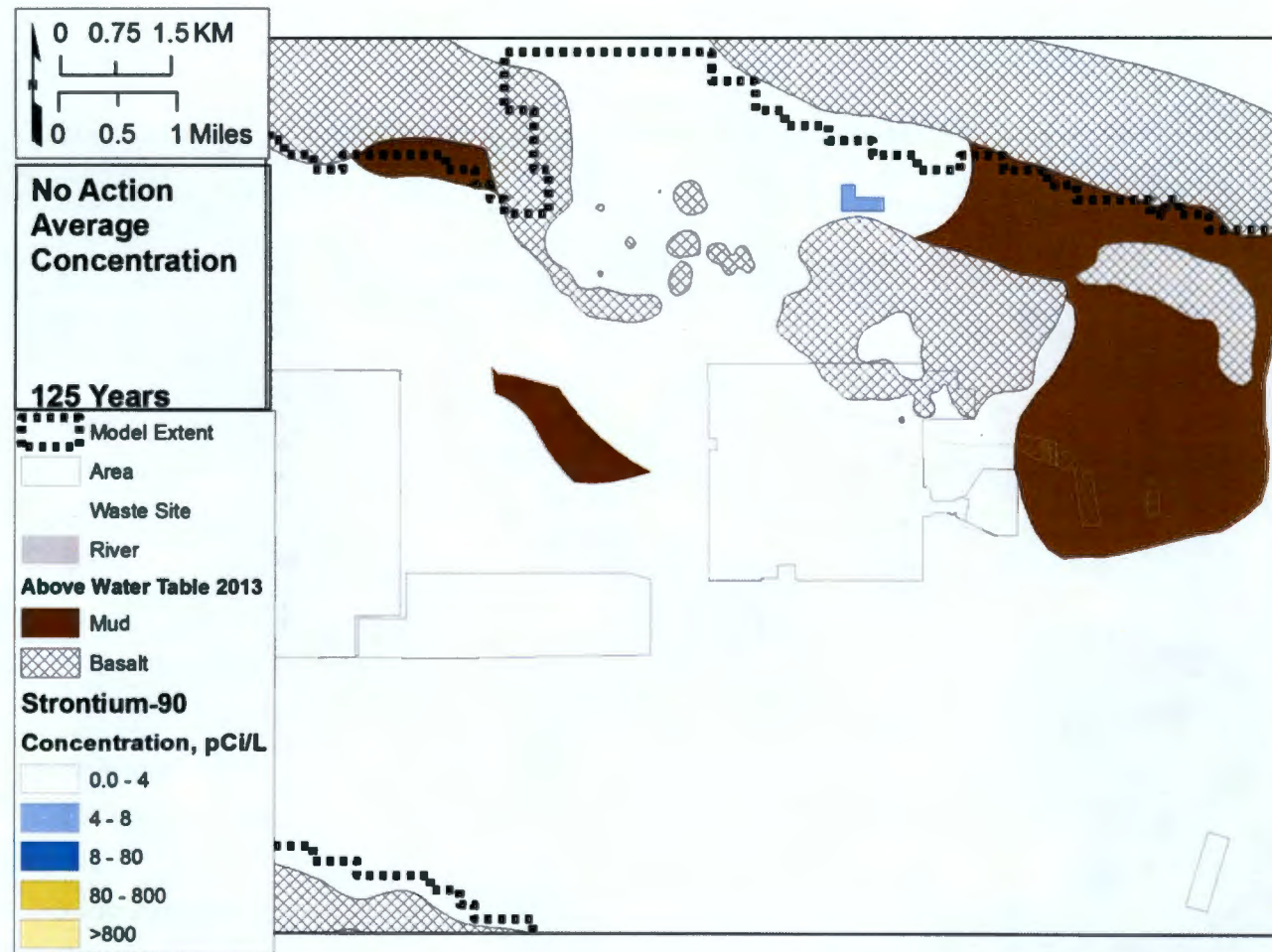
P2RGWM_sr90_75.png (DoubleFigure_P2RGWM.mxd)

Figure B-42 - Plan view contours of the strontium-90 plume at simulation time 75 years based on the base case simulation using average concentration initial conditions



P2RGWM_sr90_100.png (DoubleFigure_P2RGWM.mxd)

Figure B-43 - Plan view contours of the strontium-90 plume at simulation time 100 years based on the base case simulation using average concentration initial conditions



P2RGWM_sr90_125.png (DoubleFigure_P2RGWM.mxd)

Figure B-44 - Plan view contours of the strontium-90 plume at simulation time 125 years based on the base case simulation using average concentration initial conditions

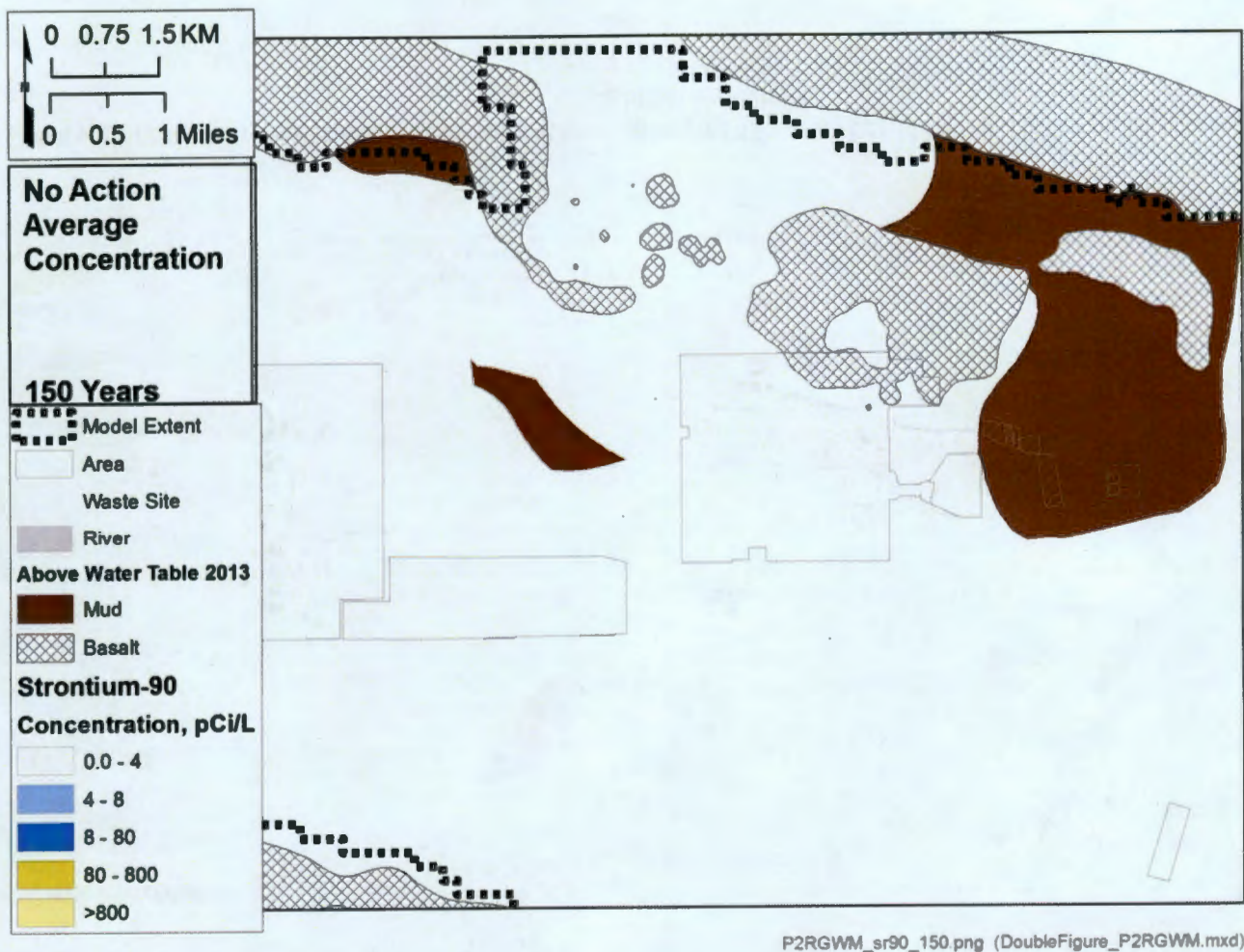
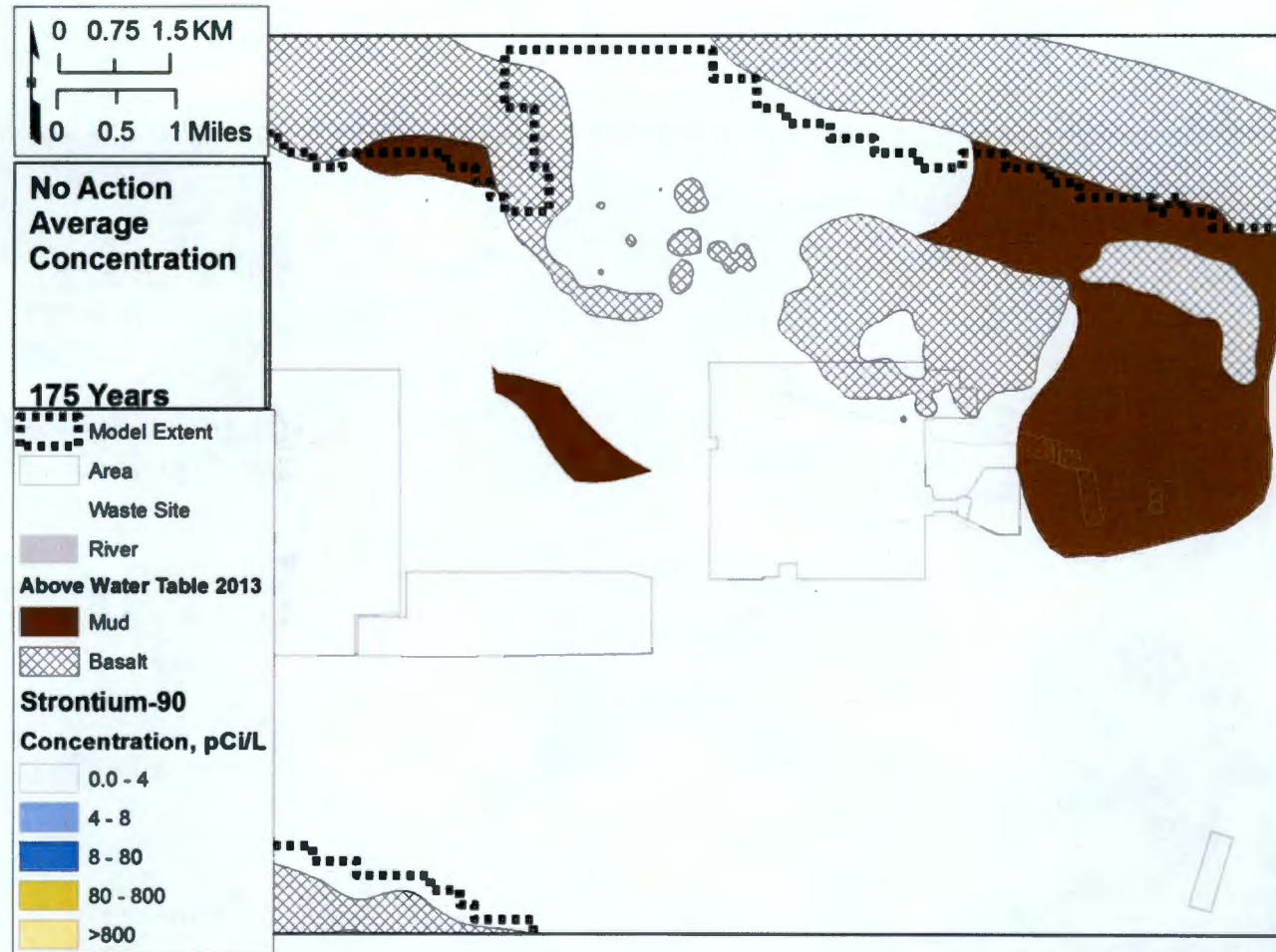
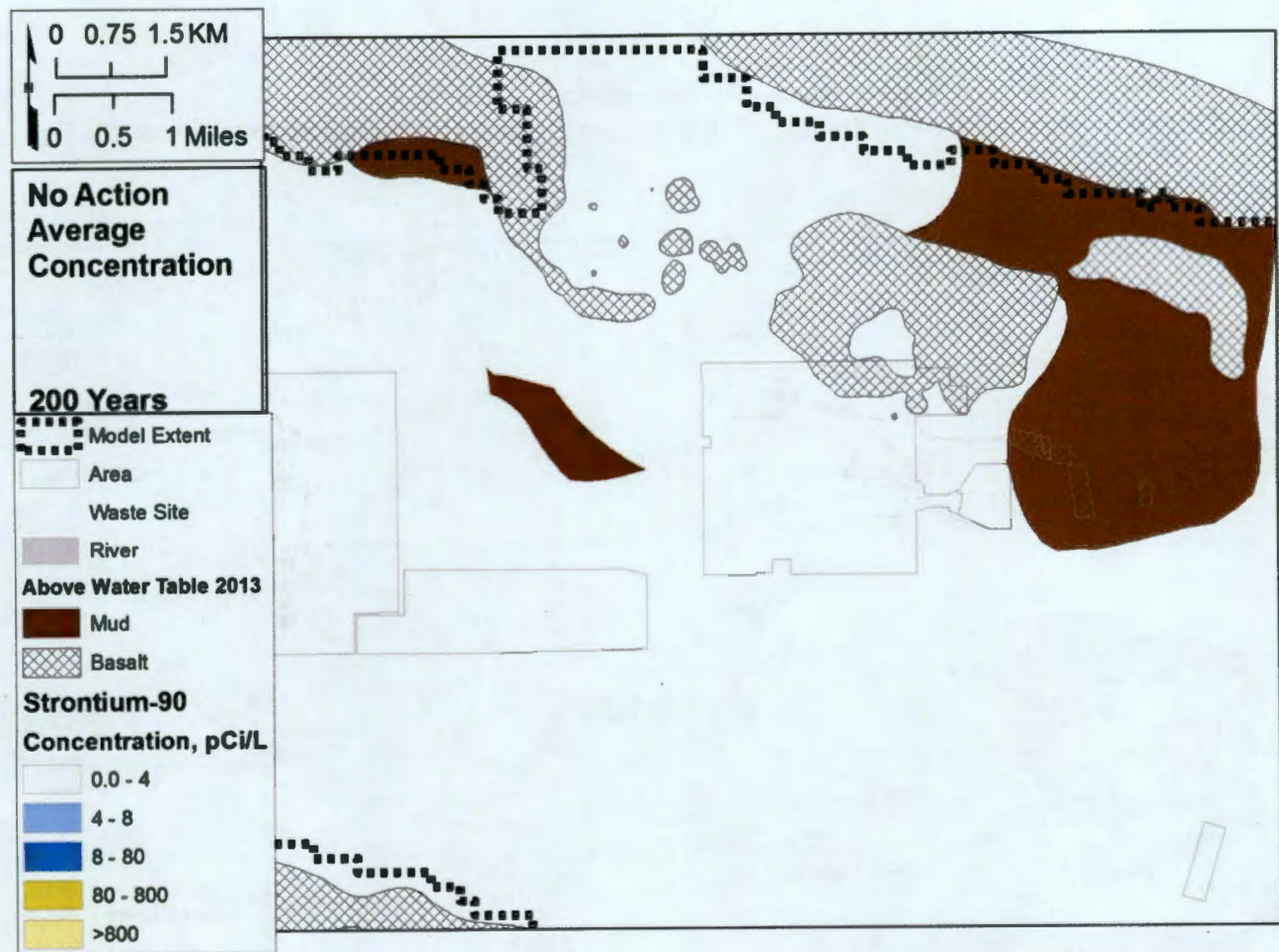


Figure B-45 - Plan view contours of the strontium-90 plume at simulation time 150 years based on the base case simulation using average concentration initial conditions



P2RGWM_sr90_175.png (DoubleFigure_P2RGWM.mxd)

Figure B-46 - Plan view contours of the strontium-90 plume at simulation time 175 years based on the base case simulation using average concentration initial conditions



P2RGWM_sr90_200.png (DoubleFigure_P2RGWM.mxd)

Figure B-47 - Plan view contours of the strontium-90 plume at simulation time 200 years based on the base case simulation using average concentration initial conditions

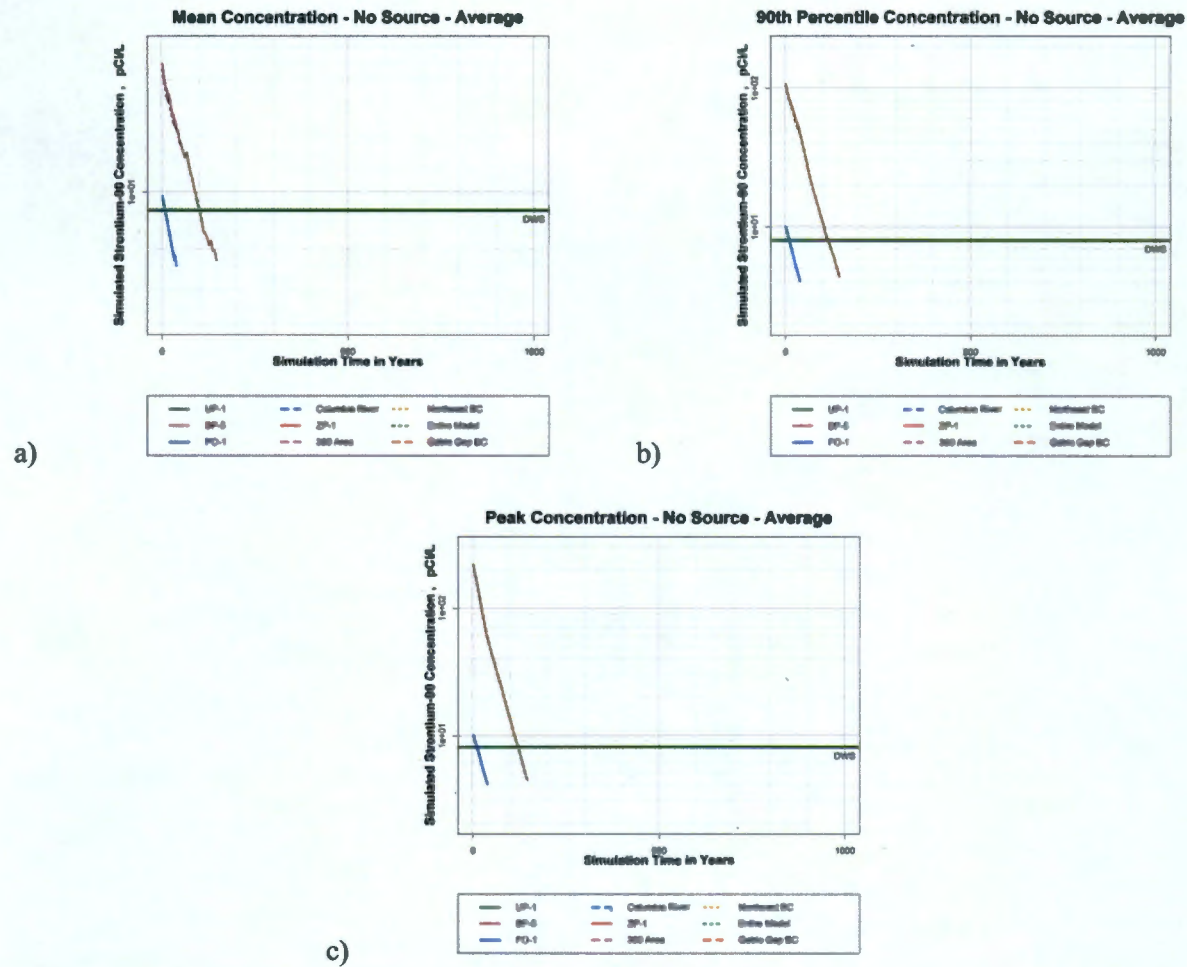


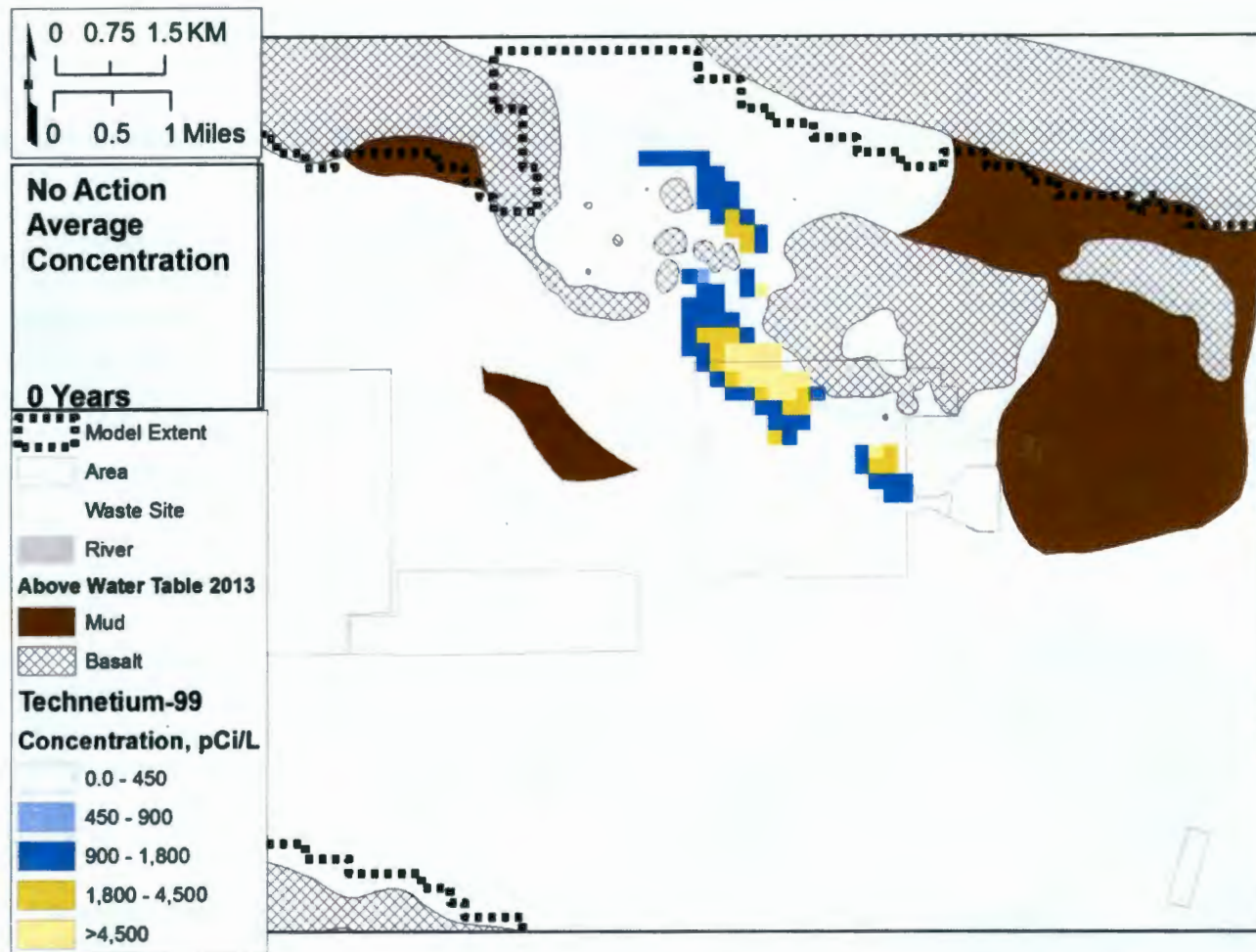
Figure B-48 - Statistical summary of simulated concentration within subregions of the model domain for the strontium-90 plume for the base case simulation using average concentration initial conditions.

Table 5 - Summary of simulated concentrations (pCi/L) at selected well locations within the model domain for the strontium-90 base case simulation using the average concentration condition.

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
699-42-42B	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-44	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-1	200-PO-1	3.6	1.8	0.9	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-14	200-PO-1	9.3	5.0	2.7	1.4	0.8	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-22	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-23	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-25	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-16	200-PO-1	5.1	2.3	1.2	0.7	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-23	200-PO-1	3.7	2.1	1.1	0.6	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-19	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-20	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-3	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-36	200-PO-1	0.0	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-37-47A	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-20	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-34	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-93	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-4	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CMAX	200-PO-1	9.9	5.6	3.0	1.7	0.9	0.5	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-25	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-2	200-BP-5	72.1	30.0	11.9	4.8	1.9	0.8	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-23	200-BP-5	140.5	68.1	31.5	14.3	6.4	2.8	1.3	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-24	200-BP-5	138.0	67.6	31.5	14.4	6.5	2.9	1.3	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-30	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E29-54	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-16	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-18	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-1A	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-2	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-205	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-26	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-3	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-31	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-32	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-337	200-BP-5	3.2	1.6	0.7	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-339	200-BP-5	2.8	1.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E33-341	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-342	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-343	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-345	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-38	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-4	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-41	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-42	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-43	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-44	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-47	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-49	200-BP-5	2.5	0.9	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-5	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-7	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-9	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-49-57A	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-50-56	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-50-59	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-55C	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-55-57	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-57-59	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-60-60	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-61-62	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-47B	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-48A	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-54-49	200-BP-5	63.5	35.6	19.4	10.6	5.8	3.2	1.7	1.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-27	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-6	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-7	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-9	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-29	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-34	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-35	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-12	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-9	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-13	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E27-14	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-155	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-21	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-22	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-23	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-24	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-4	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



P2RGWM_tc99_0.png (DoubleFigure_P2RGWM.mxd)

Figure B-49 - Plan view contours of the technetium-99 plume at simulation time 0 years based on the base case simulation using average concentration initial conditions

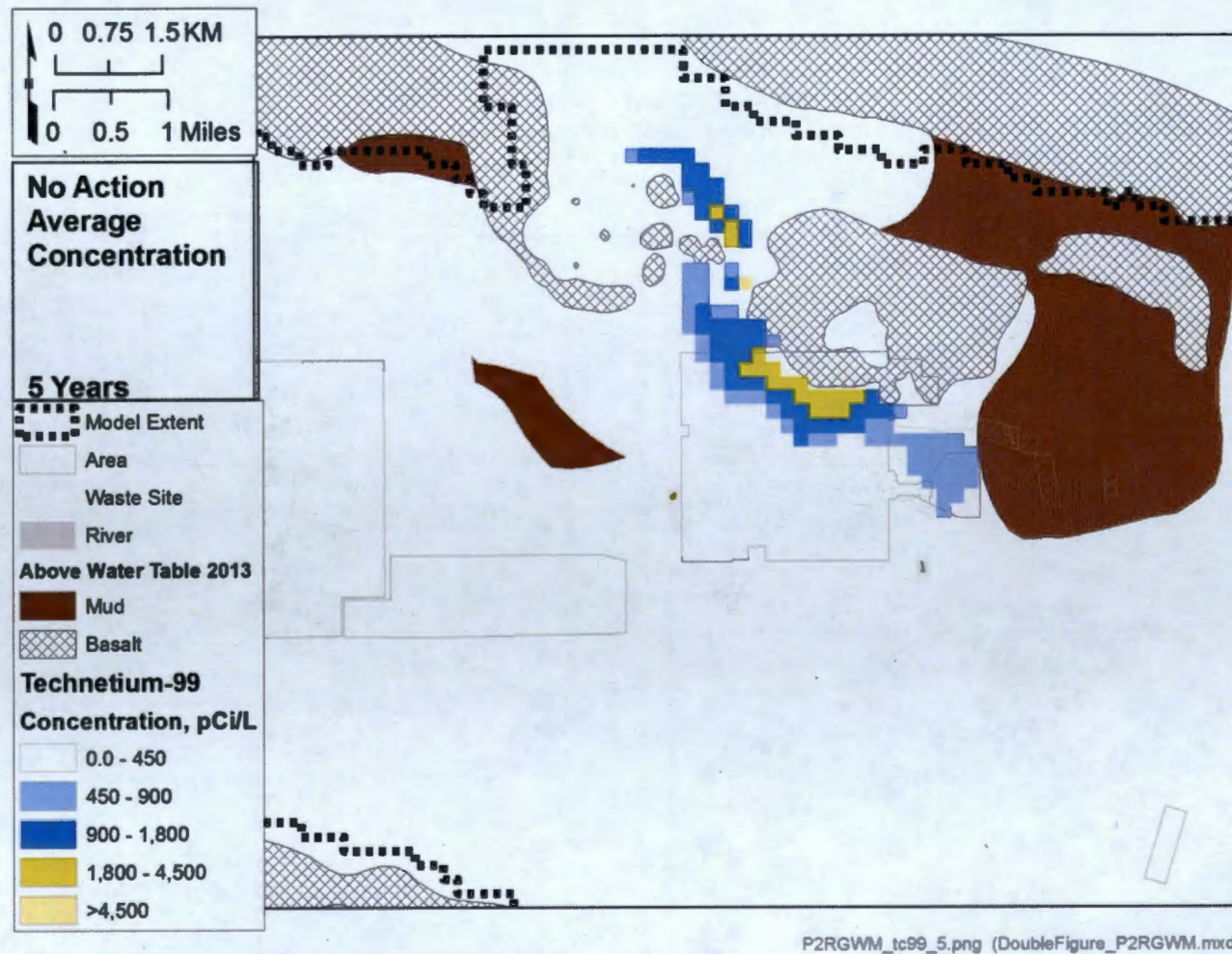
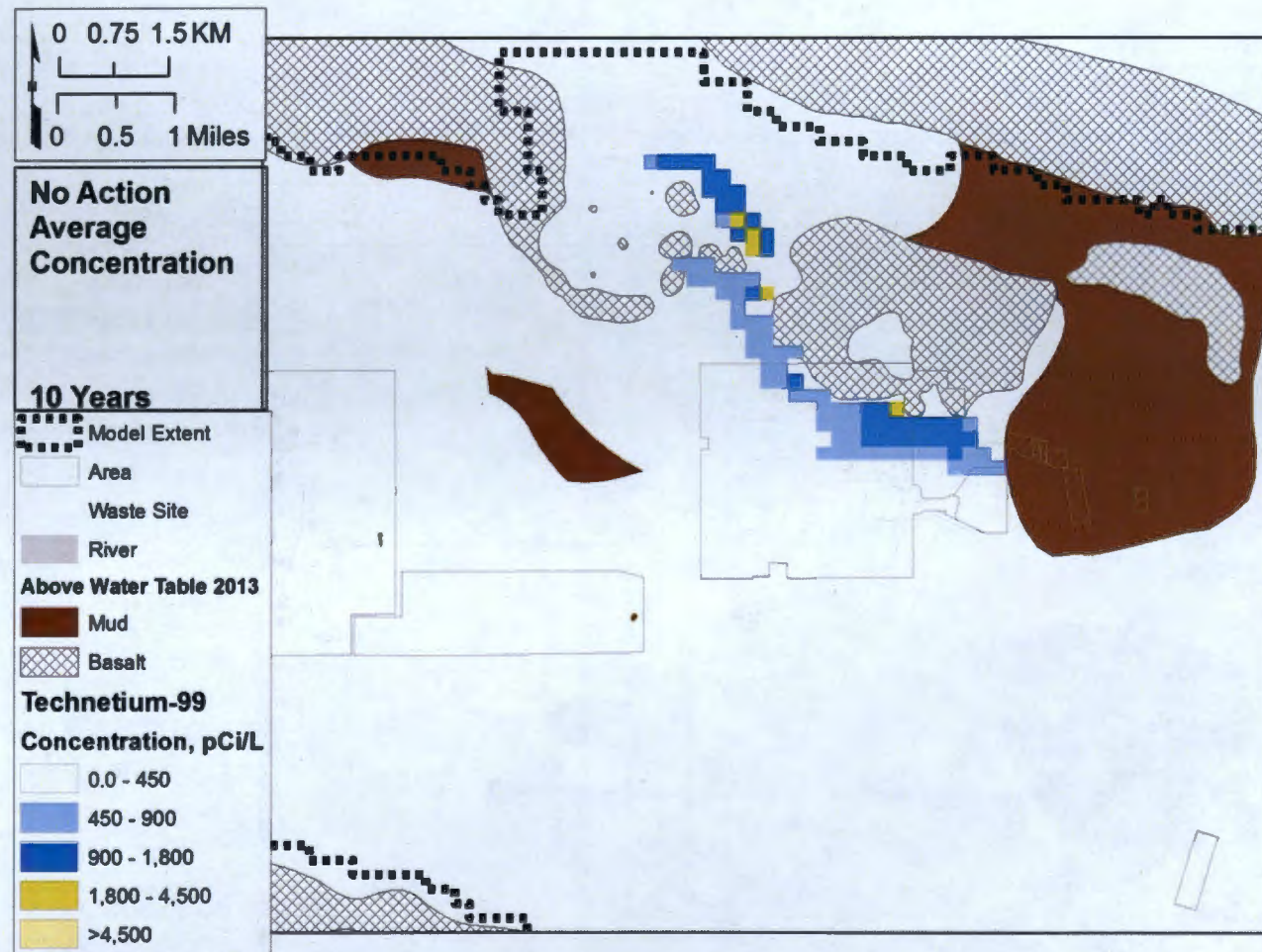


Figure B-50 - Plan view contours of the technetium-99 plume at simulation time 5 years based on the base case simulation using average concentration initial conditions



P2RGWM_tc99_10.png (DoubleFigure_P2RGWM.mxd)

Figure B-51 - Plan view contours of the technetium-99 plume at simulation time 10 years based on the base case simulation using average concentration initial conditions

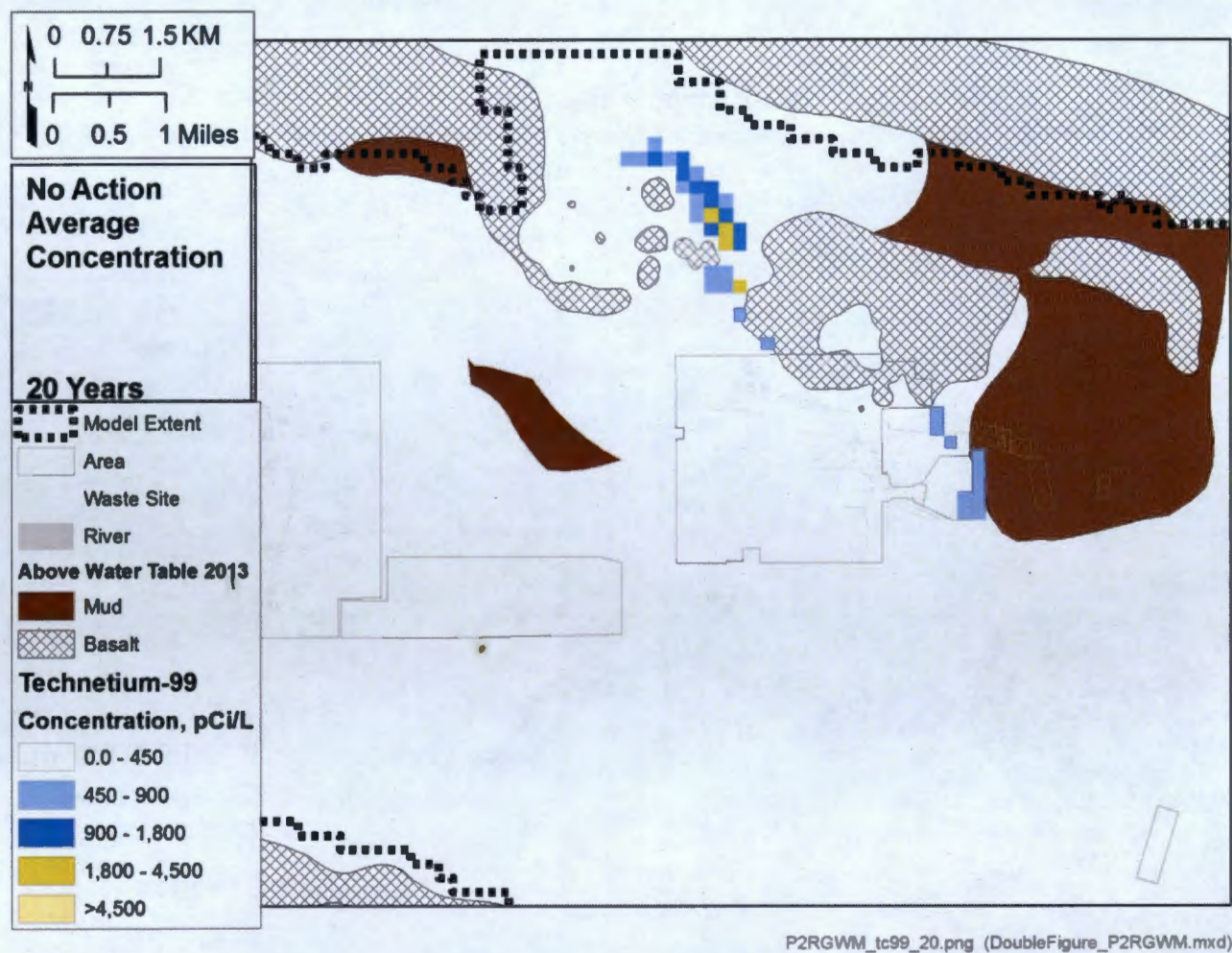


Figure B-52 - Plan view contours of the technetium-99 plume at simulation time 20 years based on the base case simulation using average concentration initial conditions

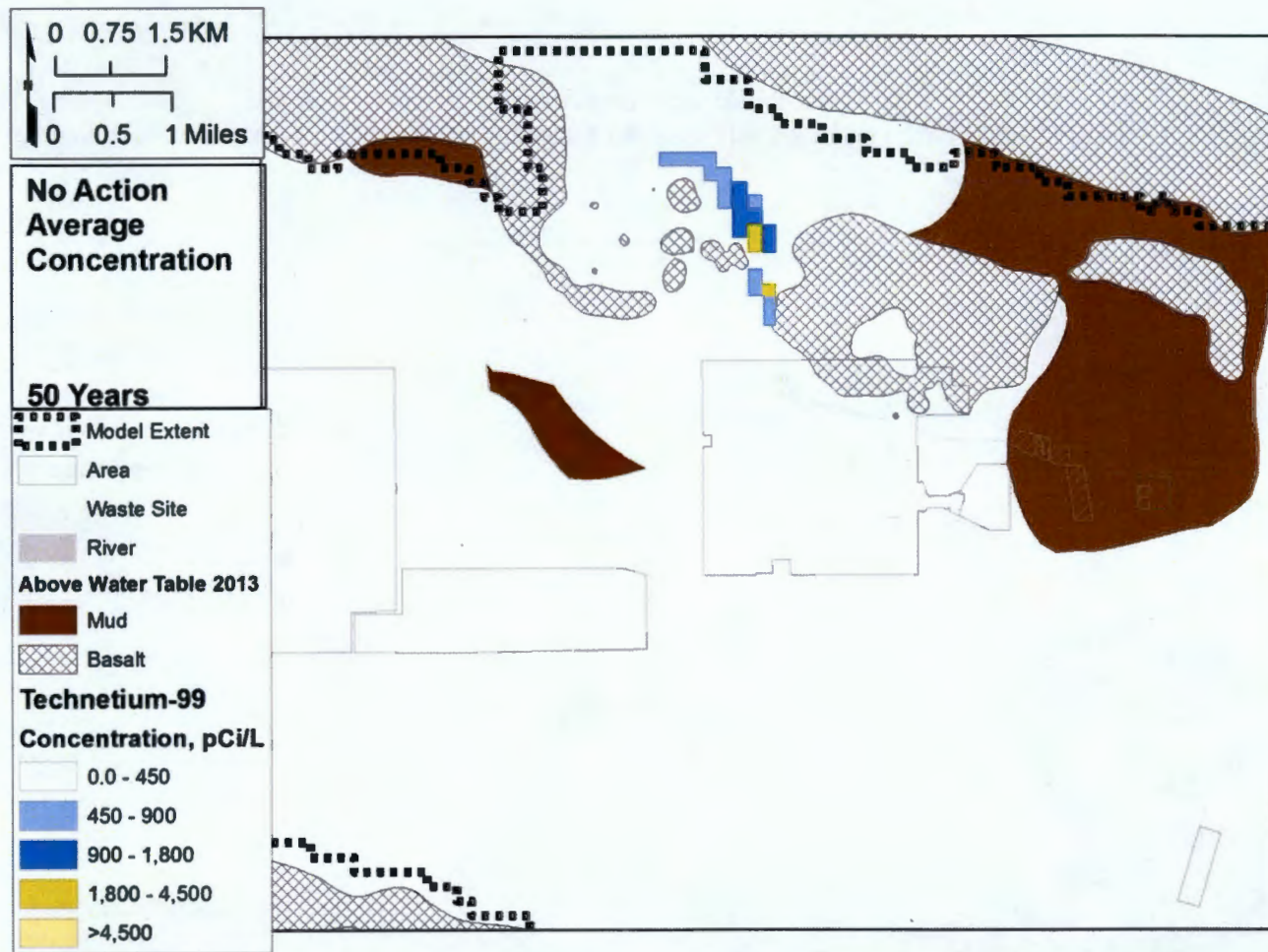
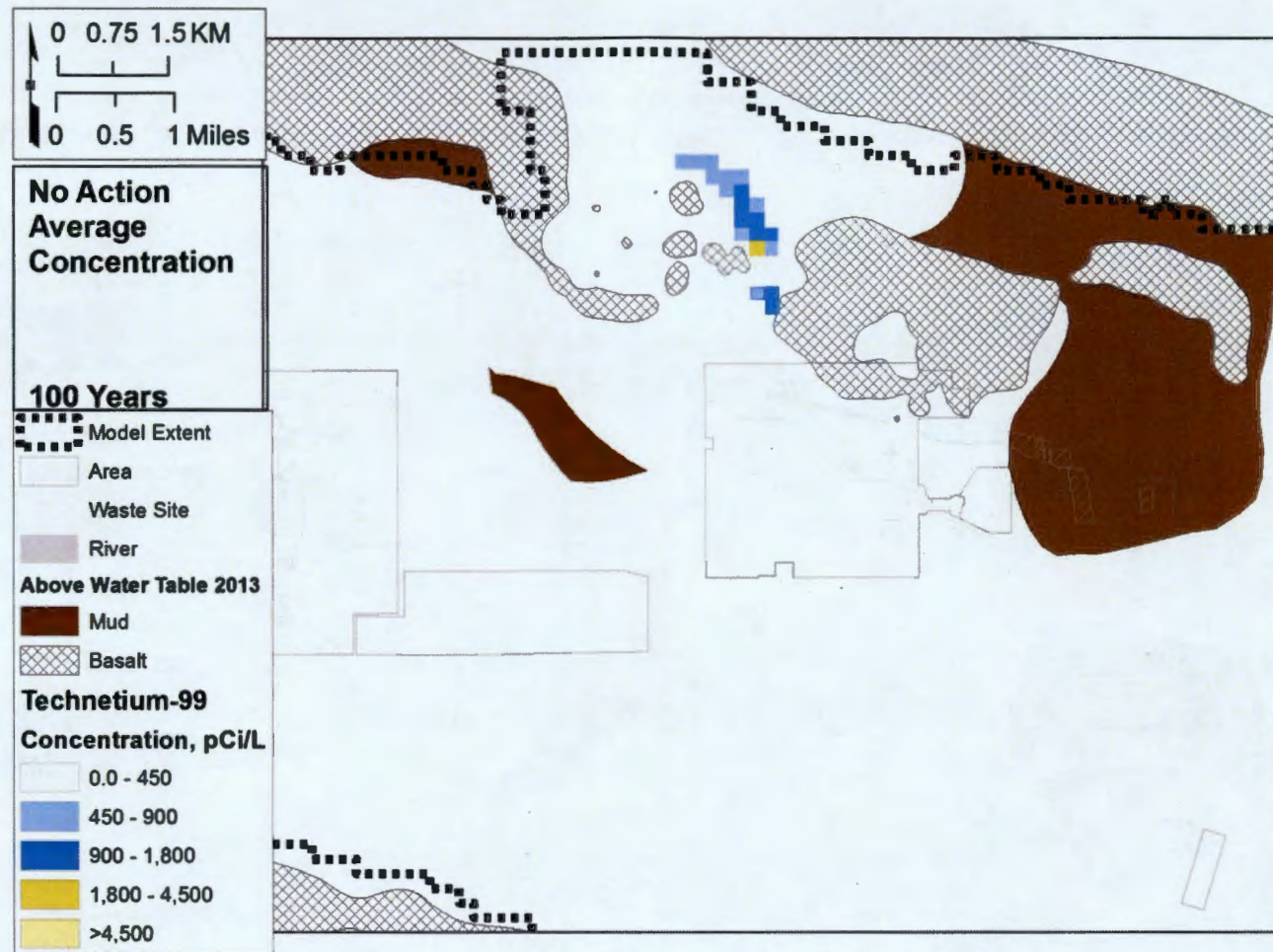
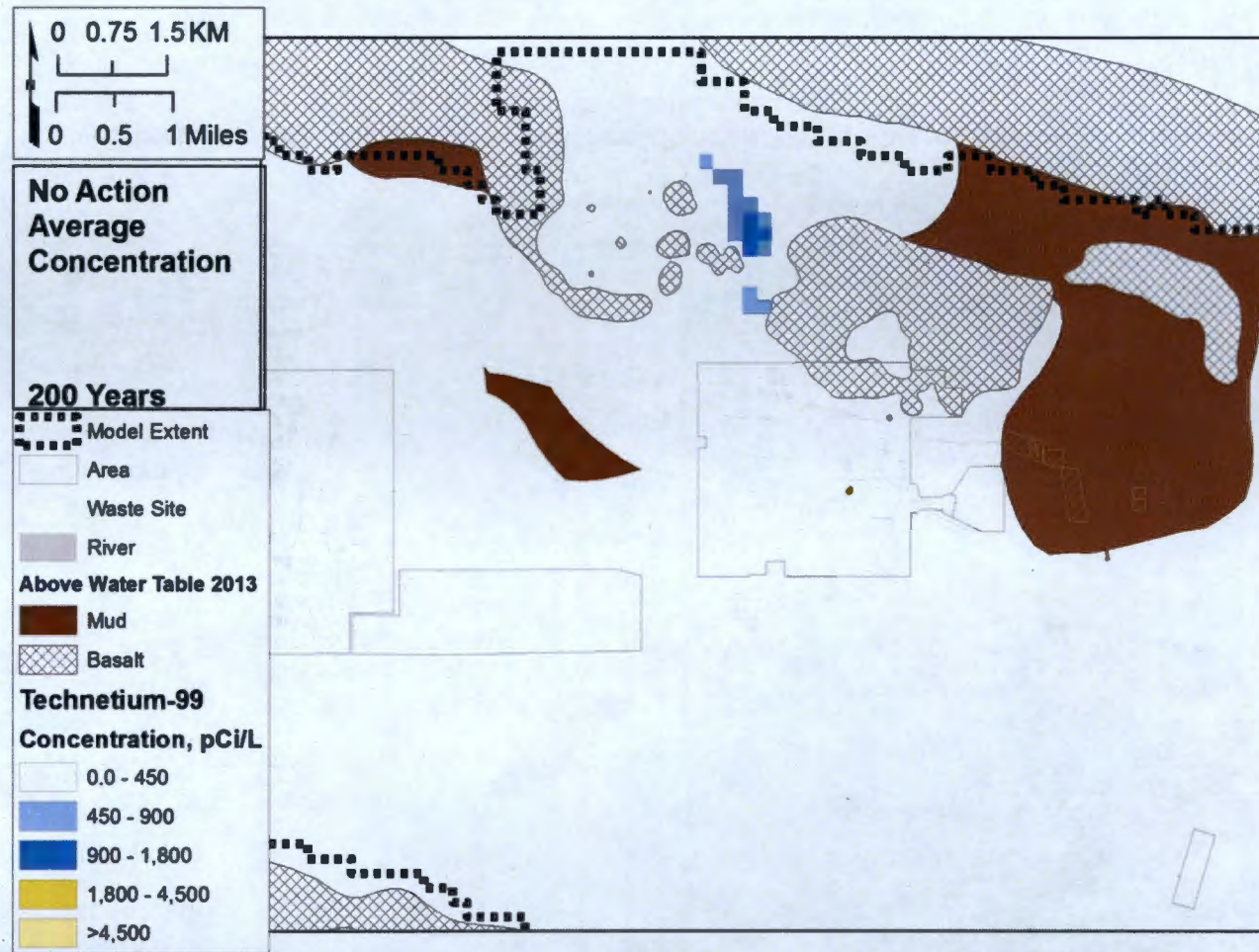


Figure B-53 - Plan view contours of the technetium-99 plume at simulation time 50 years based on the base case simulation using average concentration initial conditions



P2RGWM_tc99_100.png (DoubleFigure_P2RGWM.mxd)

Figure B-54 - Plan view contours of the technetium-99 plume at simulation time 100 years based on the base case simulation using average concentration initial conditions



P2RGWM_tc99_200.png (DoubleFigure_P2RGWM.mxd)

Figure B-55 - Plan view contours of the technetium-99 plume at simulation time 200 years based on the base case simulation using average concentration initial conditions

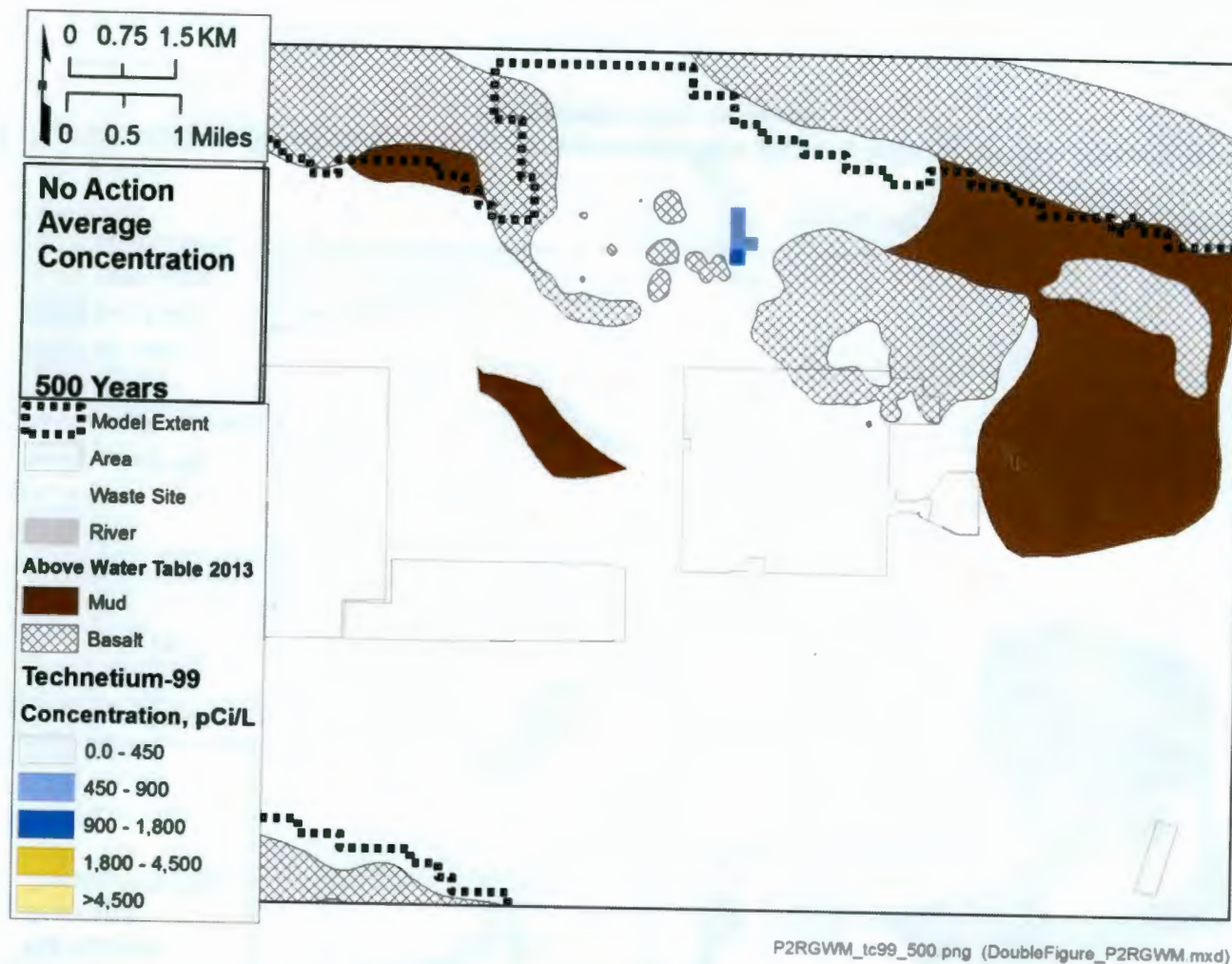
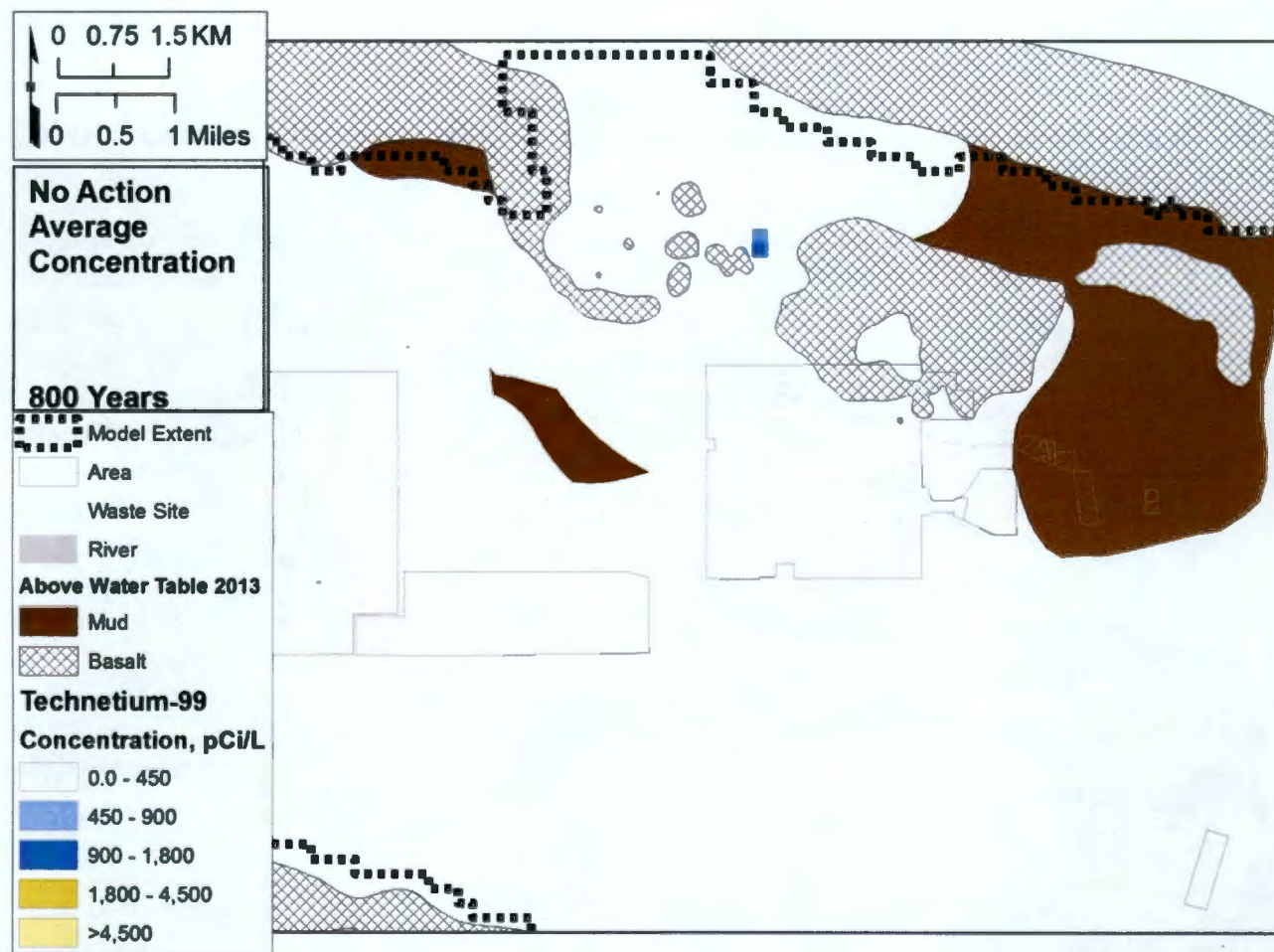


Figure B-56 - Plan view contours of the technetium-99 plume at simulation time 500 years based on the base case simulation using average concentration initial conditions



P2RGWM_tc99_800.png (DoubleFigure_P2RGWM.mxd)

Figure B-57 - Plan view contours of the technetium-99 plume at simulation time 800 years based on the base case simulation using average concentration initial conditions

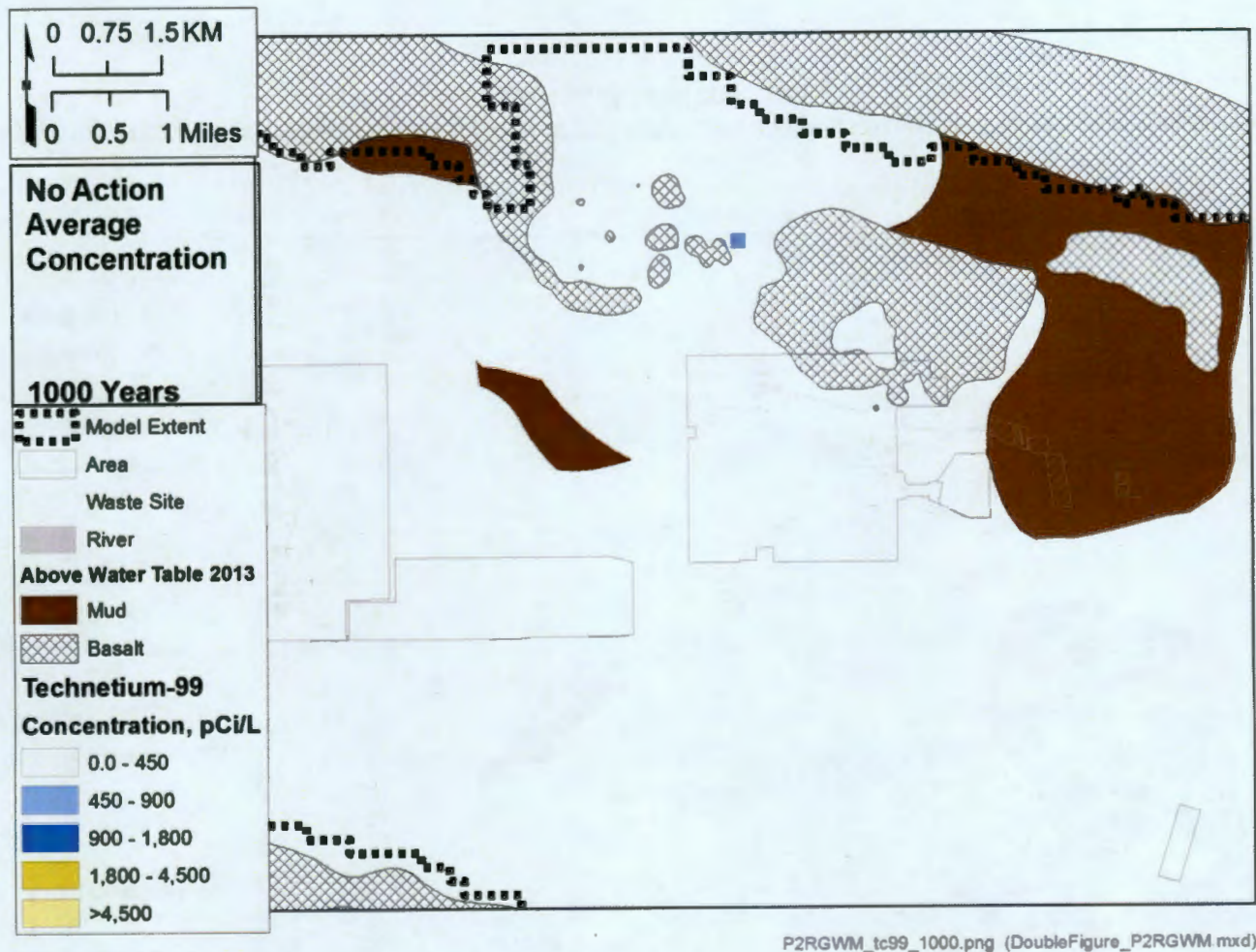


Figure B-58 - Plan view contours of the technetium-99 plume at simulation time 1000 years based on the base case simulation using average concentration initial conditions

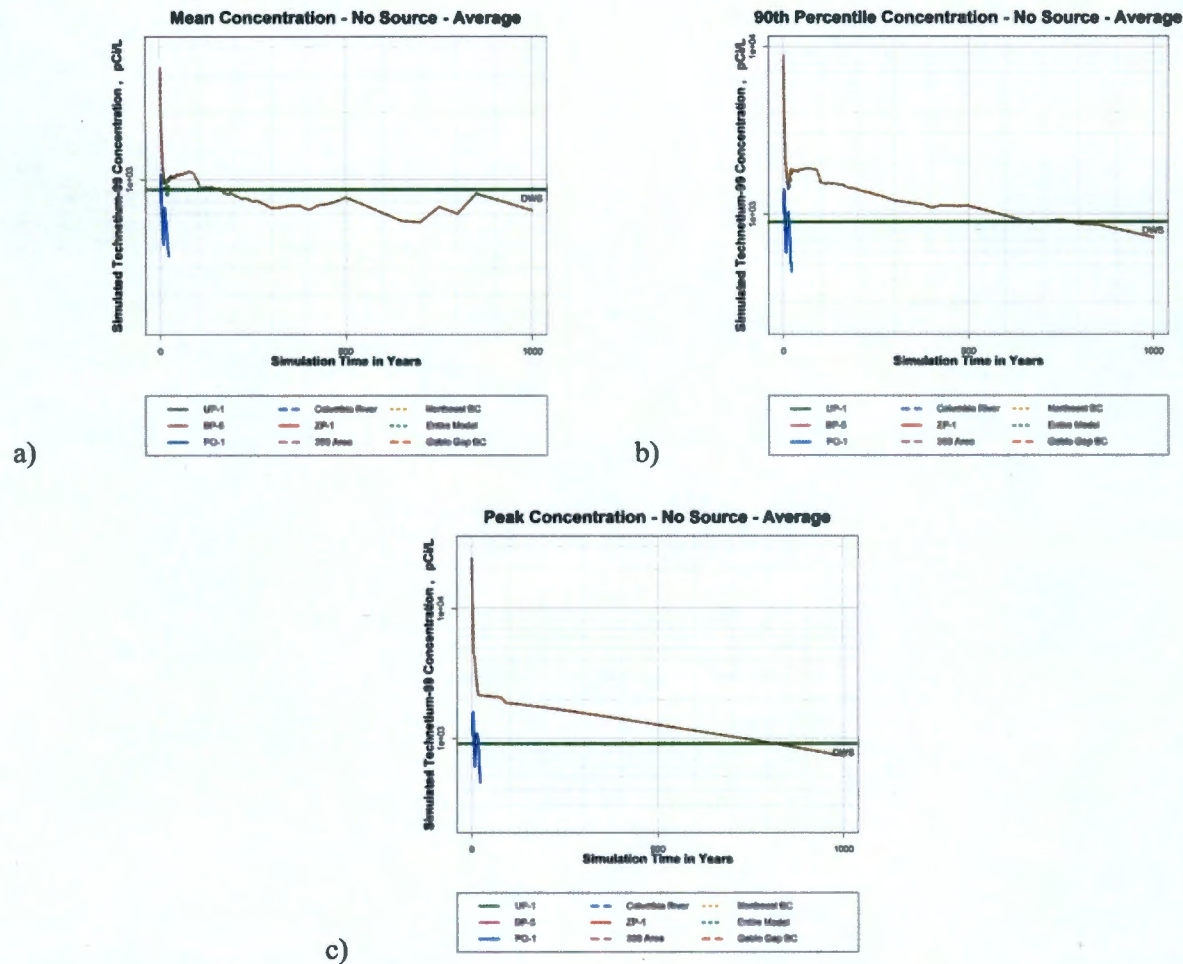


Figure B-59 - Statistical summary of simulated concentration within subregions of the model domain for the technetium-99 plume for the base case simulation using average concentration initial conditions.

Table 6 - Summary of simulated concentrations (pCi/L) at selected well locations within the model domain for the technetium-99 base case simulation using the average concentration condition.

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
699-42-42B	200-PO-1	0.0	111.3	82.3	72.7	62.4	51.6	41.3	34.0	24.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-44	200-PO-1	0.0	65.7	63.5	62.0	54.5	46.2	38.3	32.6	25.2	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	22.6	145.7	103.9	81.4	63.6	49.6	38.6	31.5	23.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-1	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-14	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-22	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-23	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-25	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-16	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-23	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-19	200-PO-1	146.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-20	200-PO-1	142.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-3	200-PO-1	92.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-36	200-PO-1	13.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-37-47A	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-20	200-PO-1	304.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-34	200-PO-1	275.7	26.1	17.9	16.7	15.4	14.2	13.0	12.1	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-93	200-PO-1	572.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-4	200-PO-1	1066.8	28.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	22.6	145.7	103.9	81.4	63.6	49.6	38.6	31.5	23.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CMAX	200-PO-1	1586.8	405.8	181.7	97.8	78.4	60.9	54.2	48.5	42.2	29.4	26.9	20.8	17.3	13.3	11.7	10.9	10.2
299-E24-25	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-2	200-BP-5	349.5	36.1	24.9	15.8	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-23	200-BP-5	675.2	28.0	14.5	11.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-24	200-BP-5	680.2	28.1	14.2	11.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-30	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E29-54	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-16	200-BP-5	11110.6	31.1	30.5	19.9	12.7	11.1	10.2	9.8	9.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-18	200-BP-5	8216.0	19.8	18.8	12.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-1A	200-BP-5	8213.1	37.7	37.2	24.7	15.9	13.9	12.8	12.3	12.0	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-2	200-BP-5	7723.0	38.6	38.0	25.3	16.4	14.3	13.1	12.6	12.3	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-205	200-BP-5	6497.6	19.3	18.7	12.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-26	200-BP-5	5588.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-3	200-BP-5	7832.3	40.0	39.3	26.1	16.9	14.7	13.6	13.0	12.7	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-31	200-BP-5	6590.7	27.1	26.9	17.8	11.5	10.1	9.4	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-32	200-BP-5	3764.5	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-337	200-BP-5	4596.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-339	200-BP-5	4210.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E33-341	200-BP-5	6697.7	38.2	37.8	25.3	16.3	14.3	13.2	12.7	12.3	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-342	200-BP-5	8340.0	36.1	35.6	23.6	15.2	13.3	12.3	11.8	11.5	10.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-343	200-BP-5	7491.0	18.6	17.6	11.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-345	200-BP-5	8318.2	20.1	19.1	12.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-38	200-BP-5	7559.1	35.7	35.4	23.5	15.2	13.3	12.2	11.8	11.5	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-4	200-BP-5	7342.1	41.0	40.3	26.9	17.4	15.1	13.9	13.4	13.0	11.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-41	200-BP-5	6469.0	16.0	15.1	9.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-42	200-BP-5	5146.5	18.2	17.9	11.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-43	200-BP-5	3161.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-44	200-BP-5	9662.4	31.0	30.6	20.1	12.9	11.2	10.3	9.9	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-47	200-BP-5	7037.6	10.9	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-49	200-BP-5	3664.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-5	200-BP-5	7153.6	35.9	35.6	23.7	15.3	13.4	12.3	11.9	11.6	10.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-7	200-BP-5	6583.3	40.6	40.2	26.9	17.4	15.2	14.0	13.4	13.0	11.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-9	200-BP-5	8986.6	31.3	31.1	20.4	13.2	11.5	10.6	10.2	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-49-57A	200-BP-5	754.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-50-56	200-BP-5	347.2	247.4	209.7	174.6	148.2	127.7	111.3	100.5	87.2	58.5	41.6	30.3	22.1	16.1	11.7	0.0	0.0
699-50-59	200-BP-5	0.0	12.9	17.0	11.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-55C	200-BP-5	2636.9	1517.7	1338.3	1213.0	1101.9	1000.4	908.1	840.7	749.3	515.2	360.3	256.3	185.1	135.4	100.2	74.9	56.5
699-55-57	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-57-59	200-BP-5	0.0	124.0	120.6	110.0	101.0	96.6	88.5	80.7	68.3	34.1	15.3	0.0	0.0	0.0	0.0	0.0	0.0
699-60-60	200-BP-5	0.0	0.0	0.0	0.0	12.6	17.5	21.7	24.2	26.5	23.6	15.1	0.0	0.0	0.0	0.0	0.0	0.0
699-61-62	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-47B	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-48A	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-54-49	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-27	200-BP-5	447.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-10	200-BP-5	2372.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-6	200-BP-5	190.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-7	200-BP-5	430.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-9	200-BP-5	1480.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-29	200-BP-5	1837.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-34	200-BP-5	3234.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-35	200-BP-5	4237.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-10	200-BP-5	26.2	22.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-12	200-BP-5	2471.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-9	200-BP-5	4023.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-13	200-BP-5	2802.8	37.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E27-14	200-BP-5	3428.5	41.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-155	200-BP-5	1575.4	24.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-21	200-BP-5	2493.6	23.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-22	200-BP-5	280.3	25.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-23	200-BP-5	2532.4	31.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-24	200-BP-5	2850.4	29.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-4	200-BP-5	2396.9	37.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

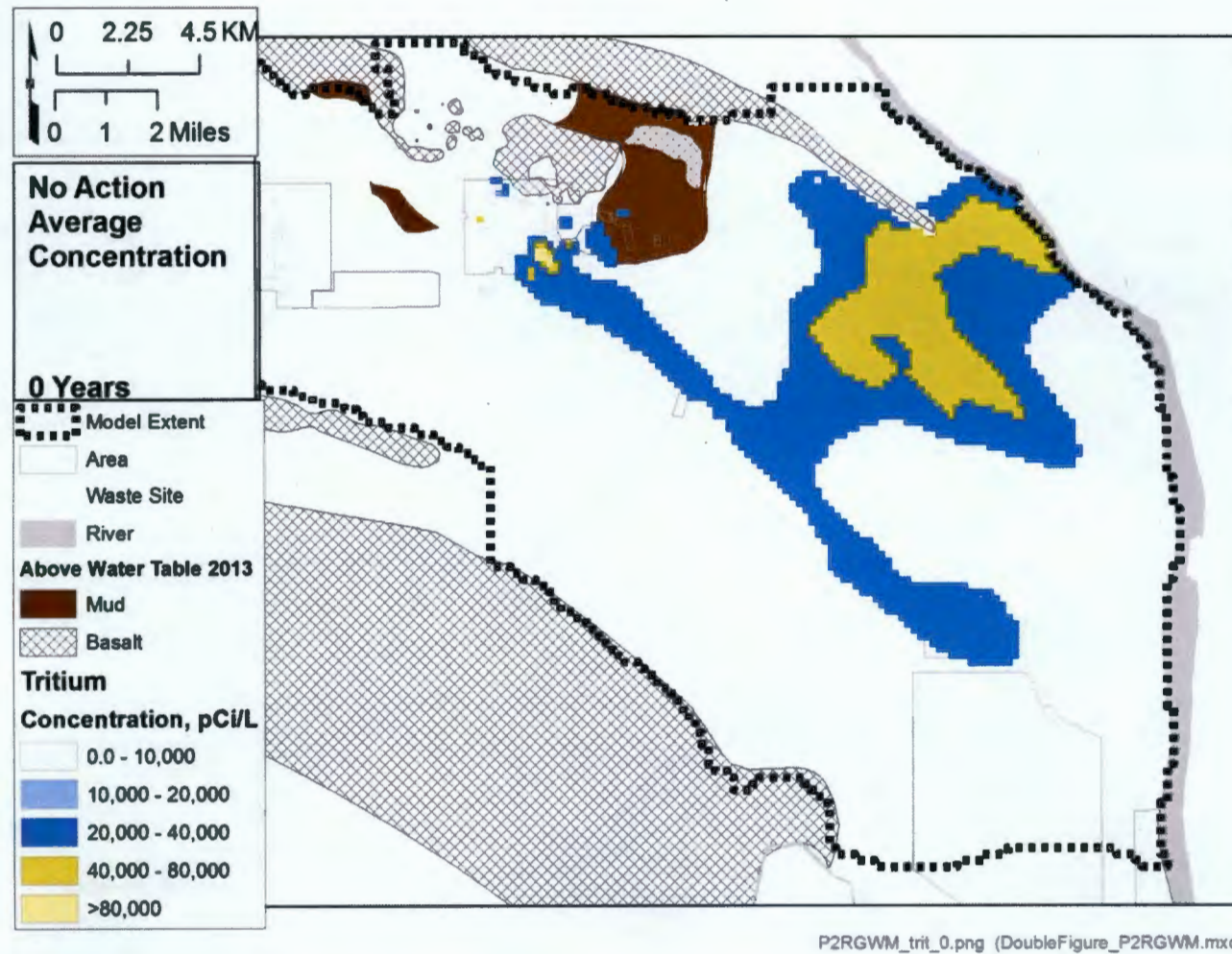


Figure B-60 - Plan view contours of the tritium plume at simulation time 0 years based on the base case simulation using average concentration initial conditions

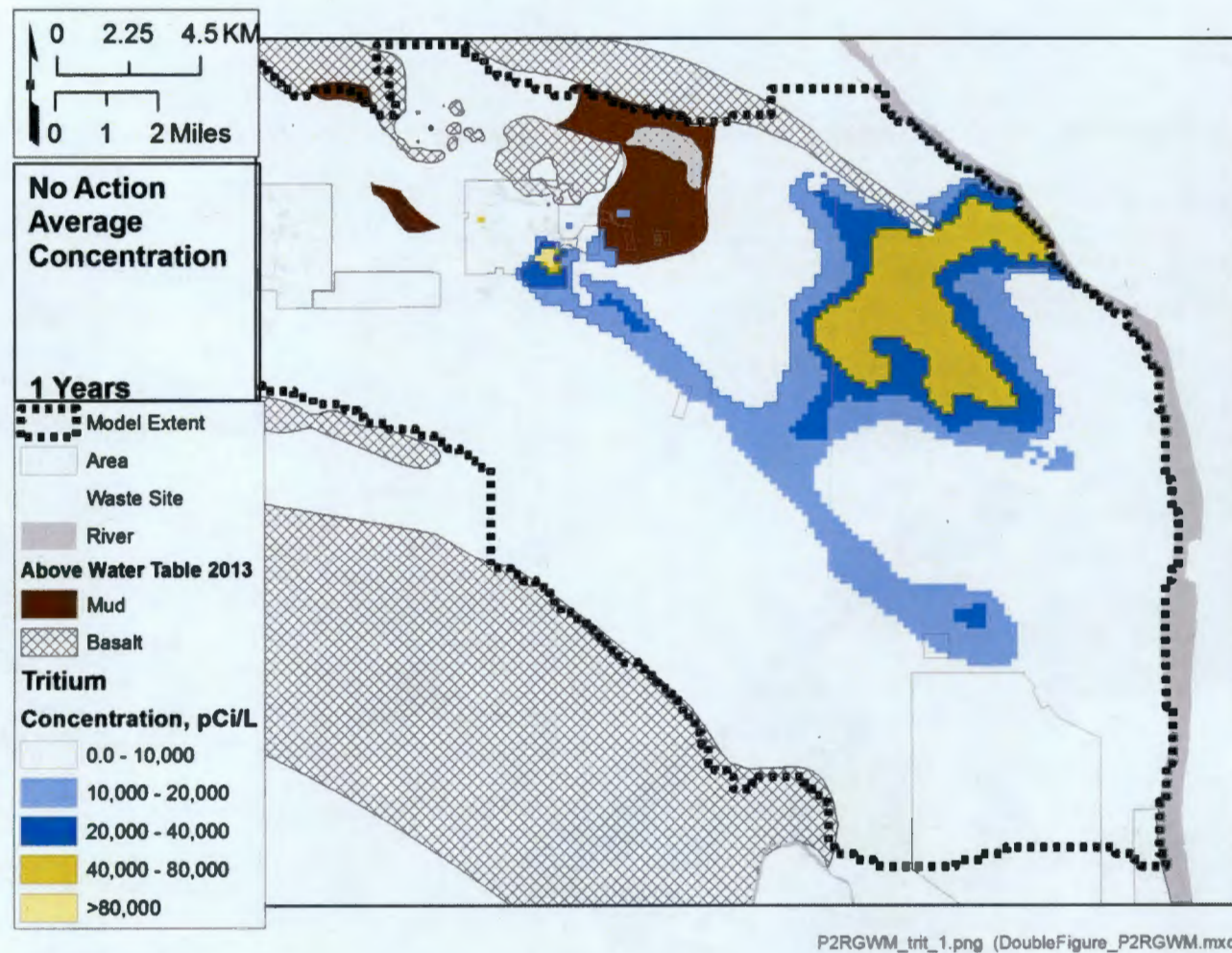


Figure B-61 - Plan view contours of the tritium plume at simulation time 1 years based on the base case simulation using average concentration initial conditions

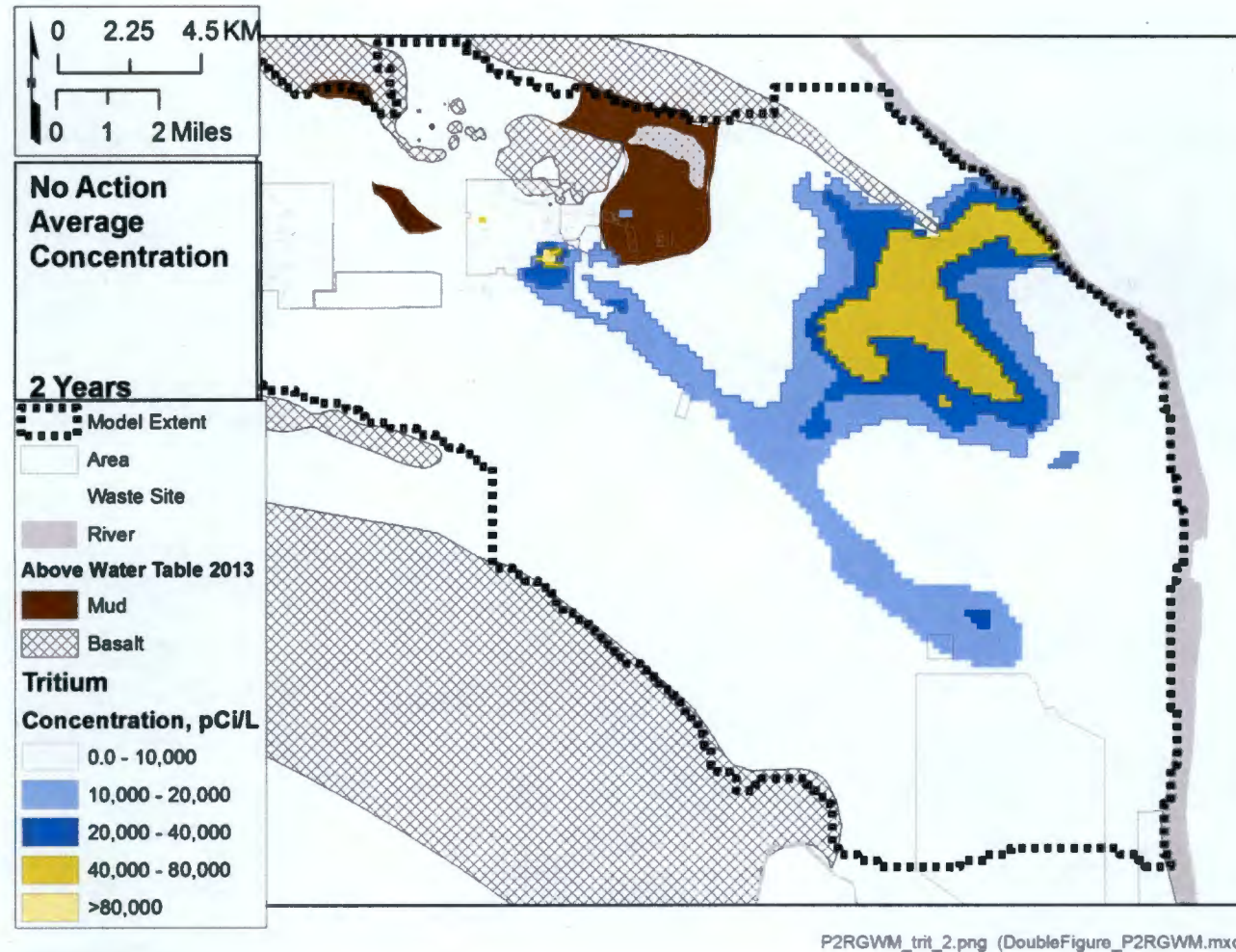
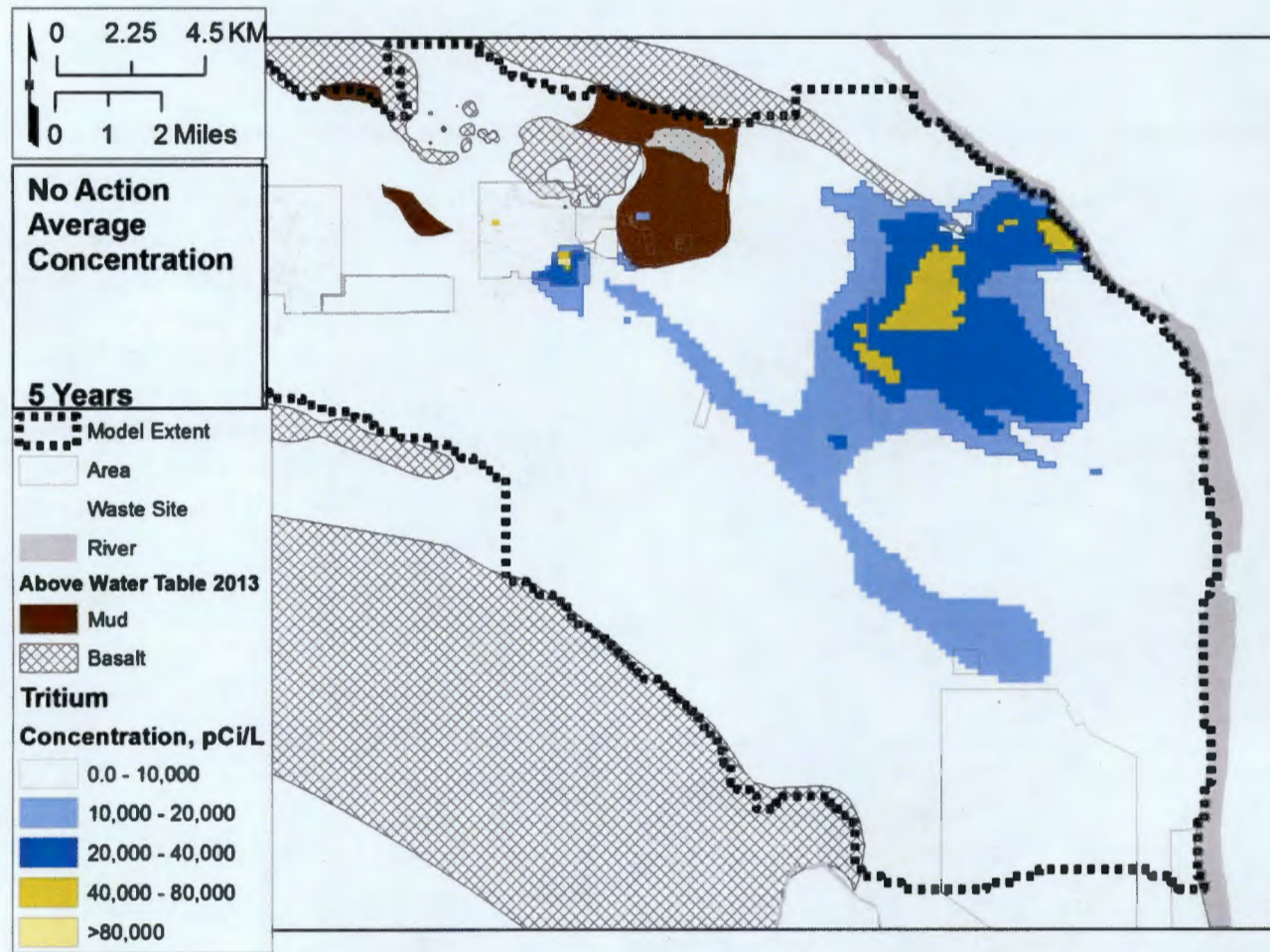


Figure B-62 - Plan view contours of the tritium plume at simulation time 2 years based on the base case simulation using average concentration initial conditions



P2RGWM_trit_5.png (DoubleFigure_P2RGWM.mxd)

Figure B-63 - Plan view contours of the tritium plume at simulation time 5 years based on the base case simulation using average concentration initial conditions

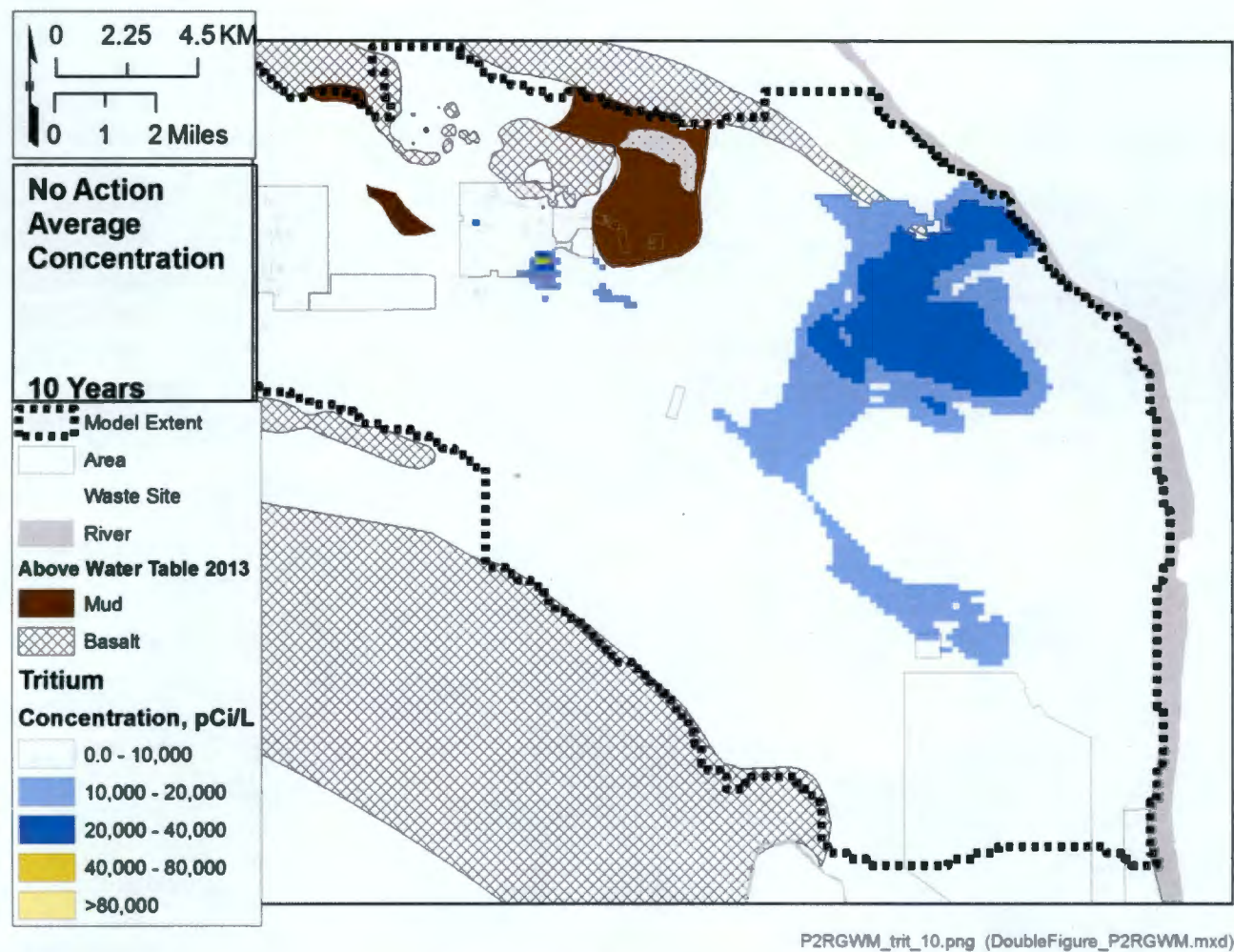


Figure B-64 - Plan view contours of the tritium plume at simulation time 10 years based on the base case simulation using average concentration initial conditions

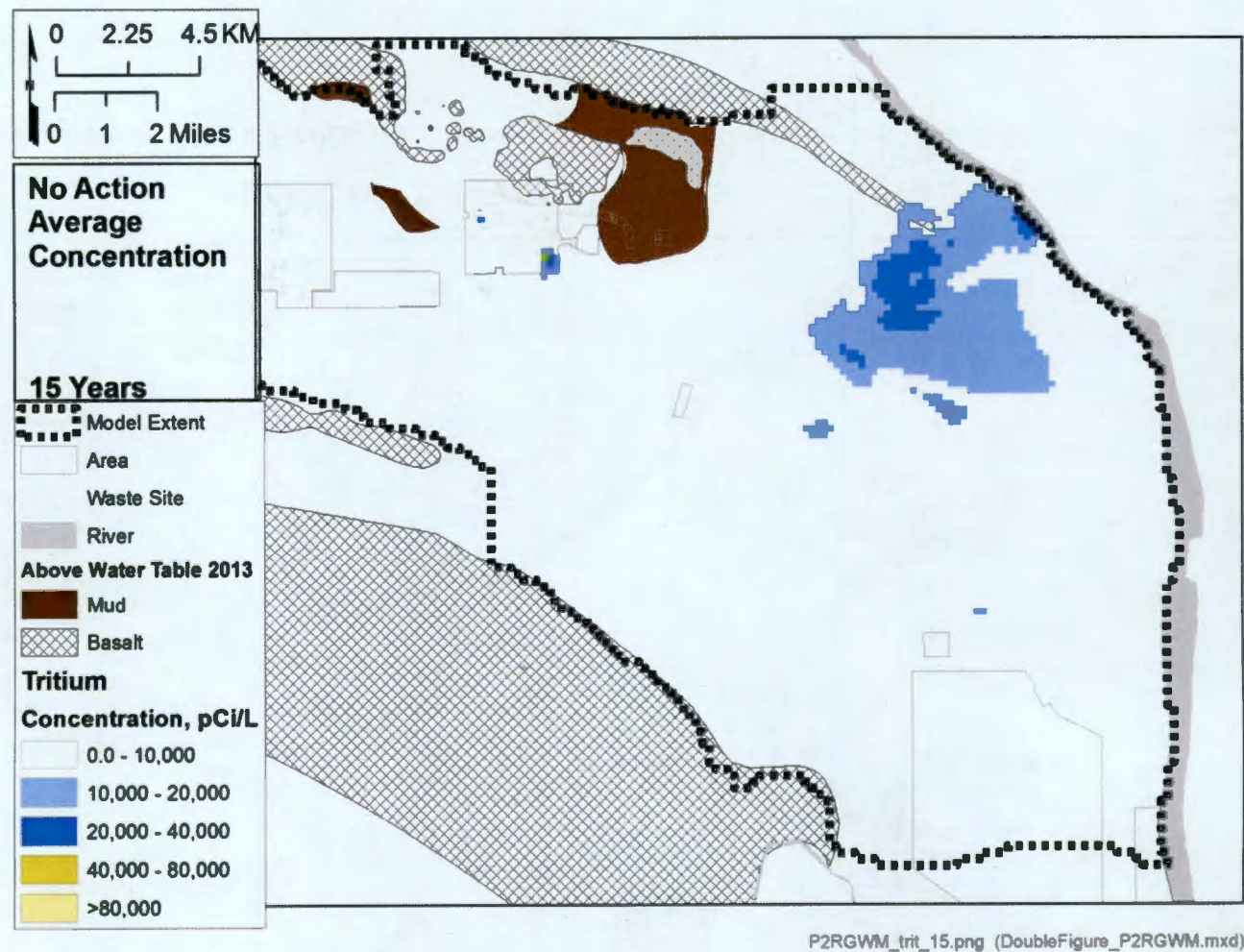


Figure B-65 - Plan view contours of the tritium plume at simulation time 15 years based on the base case simulation using average concentration initial conditions

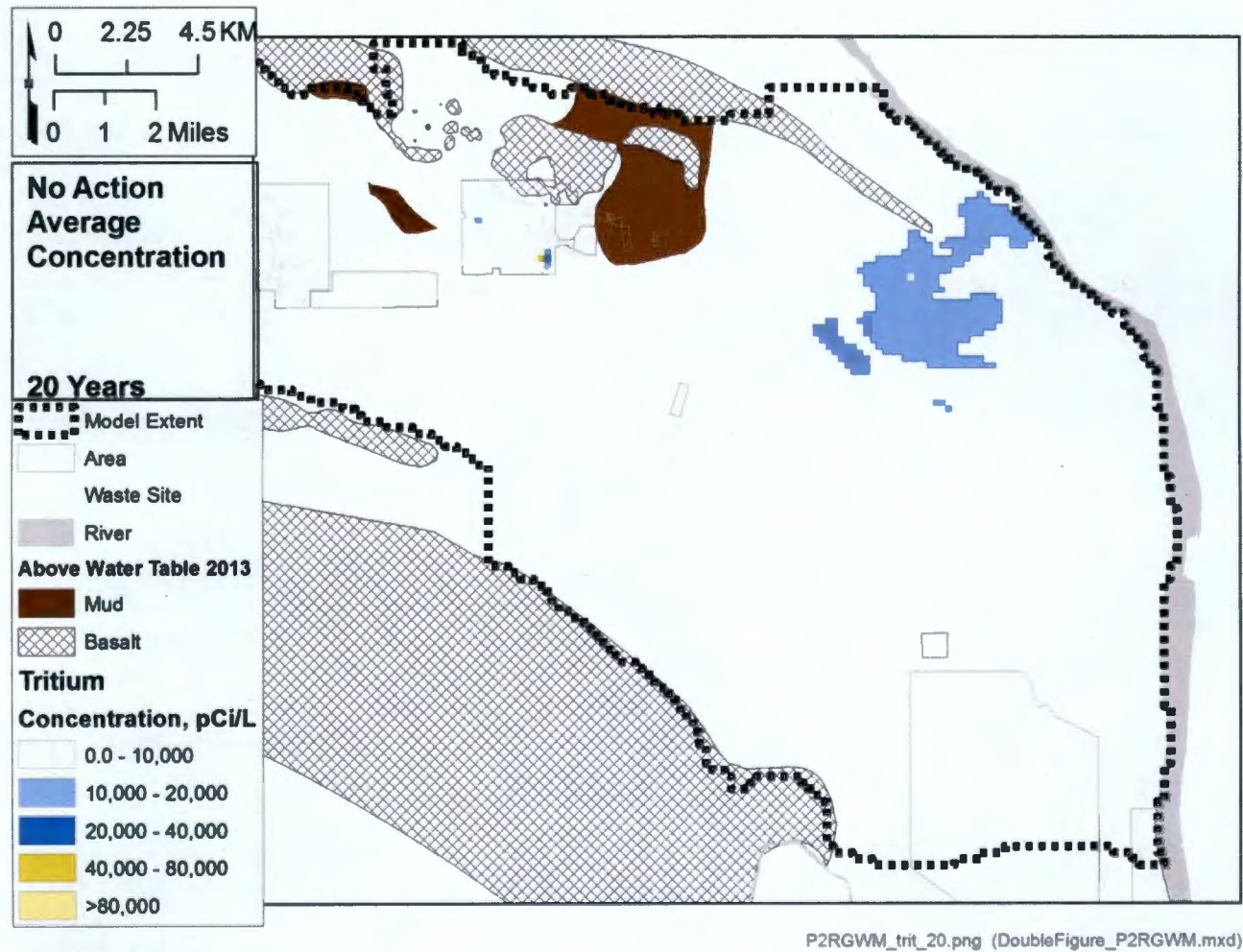


Figure B-66 - Plan view contours of the tritium plume at simulation time 20 years based on the base case simulation using average concentration initial conditions

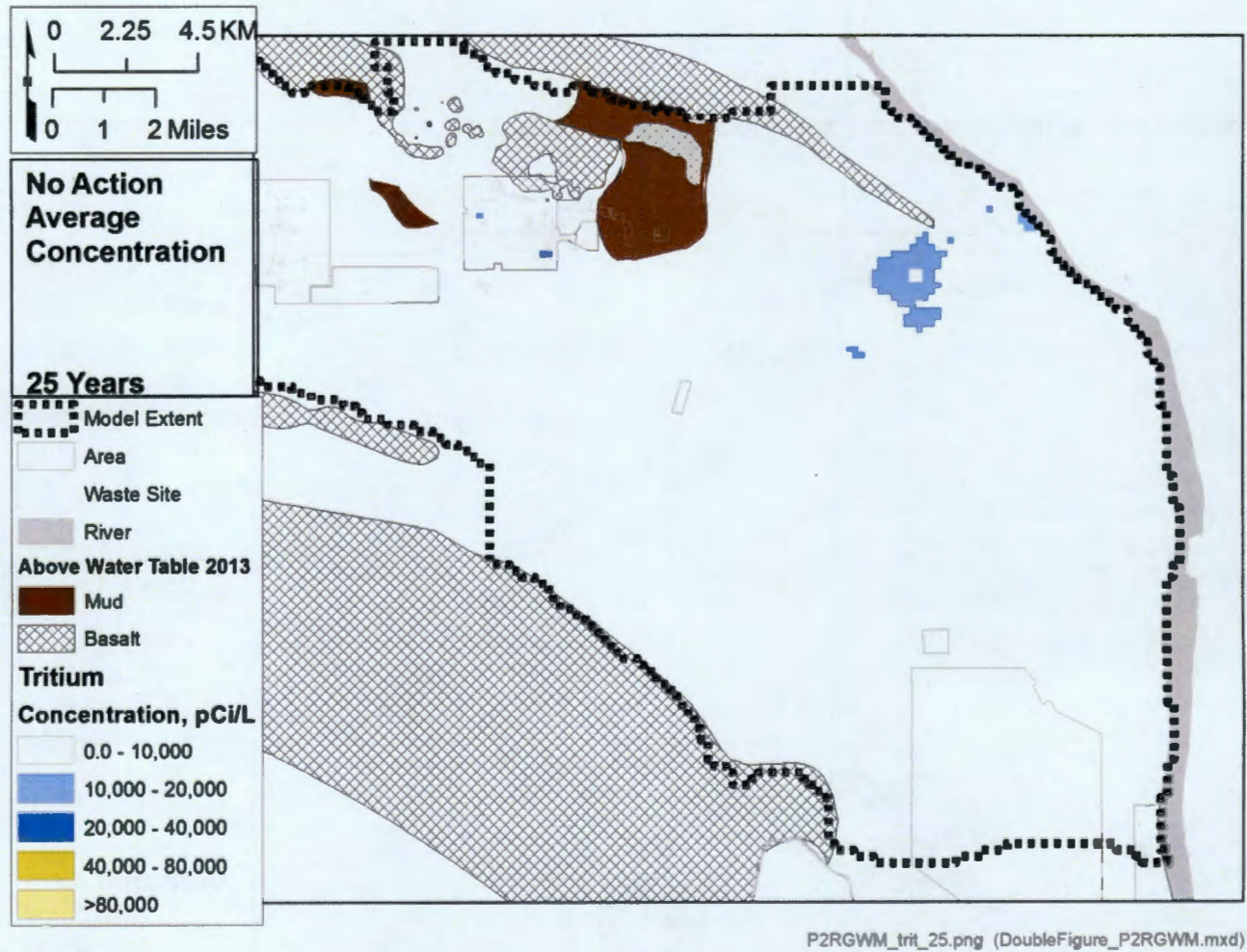


Figure B-67 - Plan view contours of the tritium plume at simulation time 25 years based on the base case simulation using average concentration initial conditions

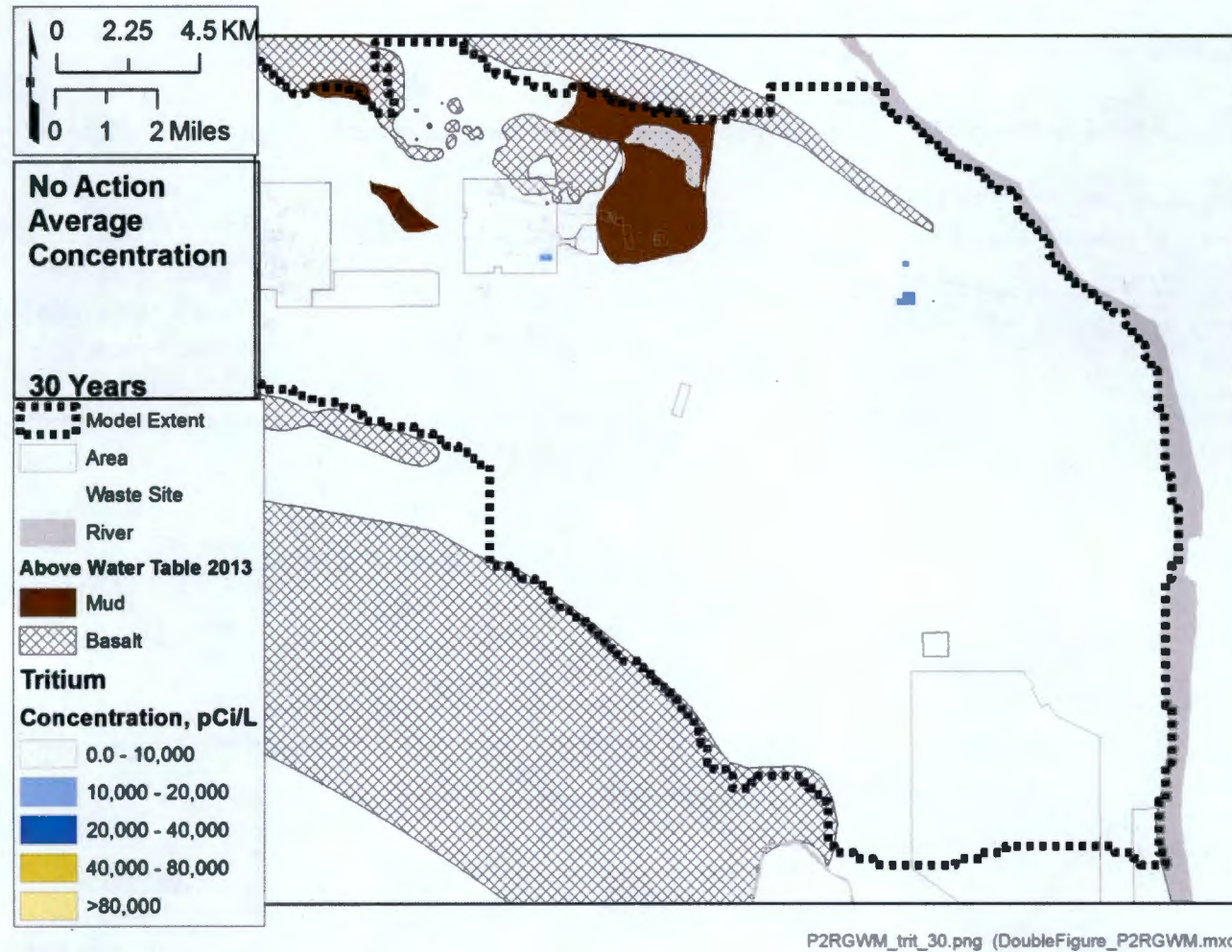


Figure B-68 - Plan view contours of the tritium plume at simulation time 30 years based on the base case simulation using average concentration initial conditions

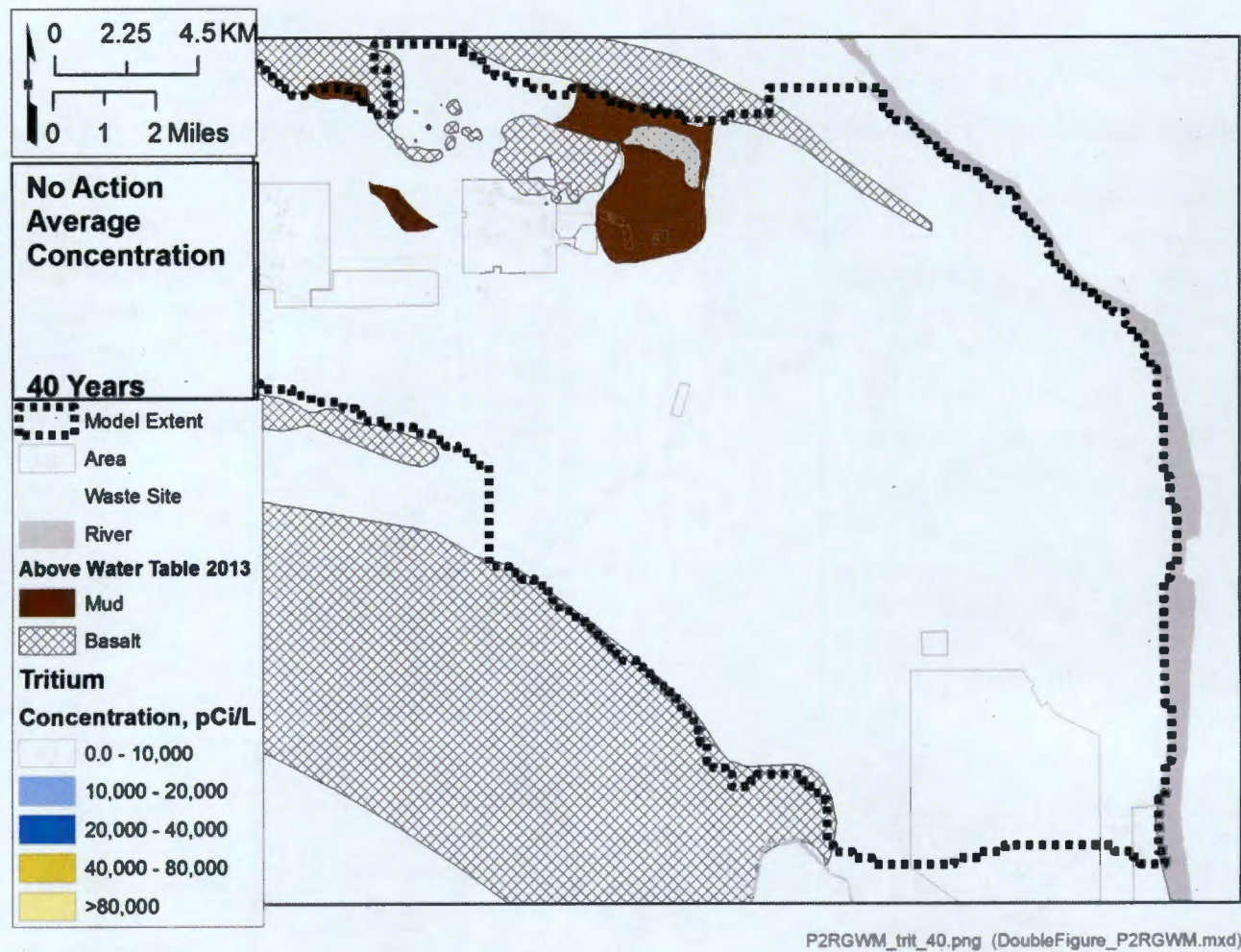


Figure B-69 - Plan view contours of the tritium plume at simulation time 40 years based on the base case simulation using average concentration initial conditions

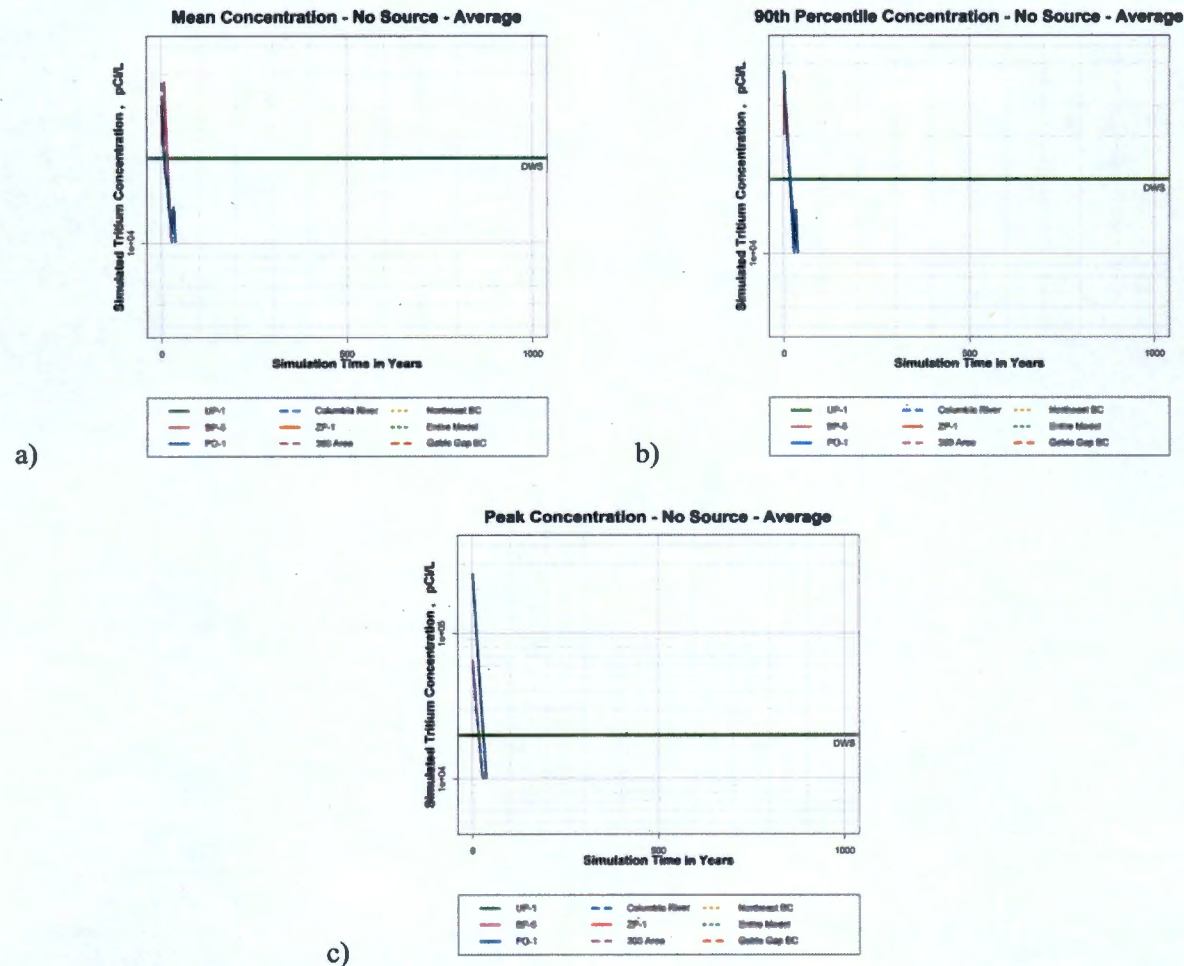


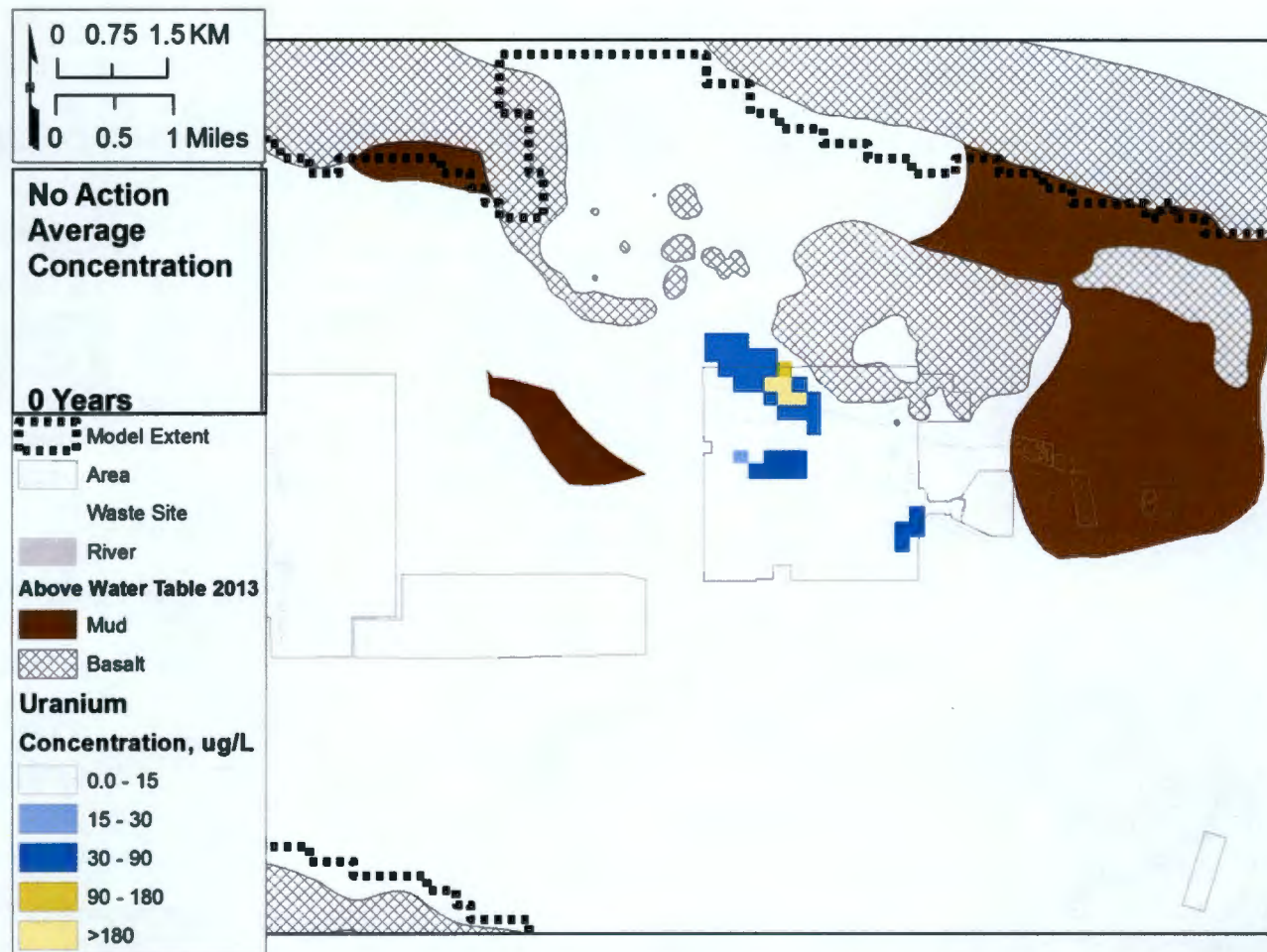
Figure B-70 - Statistical summary of simulated concentration within subregions of the model domain for the tritium plume for the base case simulation using average concentration initial conditions.

Table 7 - Summary of simulated concentrations (pCi/L) at selected well locations within the model domain for the tritium base case simulation using the average concentration condition.

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
699-42-42B	200-PO-1	916.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-44	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	2038.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-1	200-PO-1	96969.1	6876.3	854.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-14	200-PO-1	198579.3	21007.9	2672.0	433.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-22	200-PO-1	46729.7	2056.6	249.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-23	200-PO-1	36384.2	2765.7	257.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-25	200-PO-1	31950.6	2888.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-16	200-PO-1	97525.0	3923.6	472.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-23	200-PO-1	83566.5	3832.3	497.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-19	200-PO-1	9831.3	539.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-20	200-PO-1	9331.2	512.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-3	200-PO-1	17454.0	827.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-36	200-PO-1	56988.9	3246.7	425.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-37-47A	200-PO-1	37538.2	4740.7	774.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-20	200-PO-1	3612.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-34	200-PO-1	5470.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-93	200-PO-1	2629.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-4	200-PO-1	4779.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	2038.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CMAX	200-PO-1	237704.5	26054.8	3279.8	584.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-25	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-2	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-23	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-24	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-30	200-BP-5	35986.1	6289.0	1183.3	237.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E29-54	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-16	200-BP-5	7113.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-18	200-BP-5	5084.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-1A	200-BP-5	5516.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-2	200-BP-5	5227.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-205	200-BP-5	3548.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-26	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-3	200-BP-5	5426.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-31	200-BP-5	4014.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-32	200-BP-5	1307.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-337	200-BP-5	2926.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-339	200-BP-5	1773.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

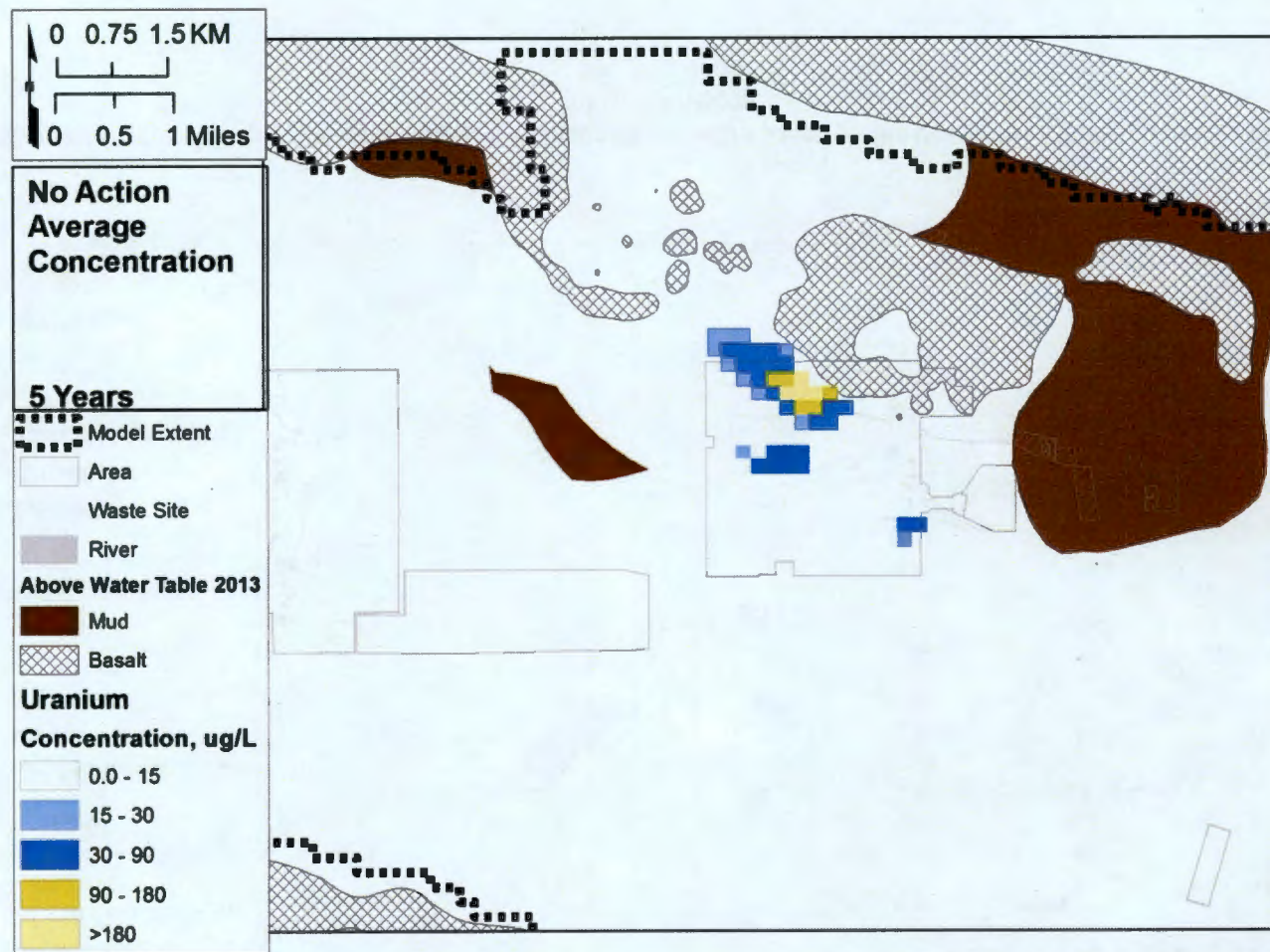
Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E33-341	200-BP-5	4408.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-342	200-BP-5	5483.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-343	200-BP-5	4407.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-345	200-BP-5	5163.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-38	200-BP-5	4935.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-4	200-BP-5	5117.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-41	200-BP-5	3477.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-42	200-BP-5	2647.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-43	200-BP-5	731.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-44	200-BP-5	6013.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-47	200-BP-5	5322.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-49	200-BP-5	1153.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-5	200-BP-5	4652.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-7	200-BP-5	4444.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-9	200-BP-5	5611.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-49-57A	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-50-56	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-50-59	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-55C	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-55-57	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-57-59	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-60-60	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-61-62	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-47B	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-48A	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-54-49	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-27	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-6	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-7	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-9	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-29	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-34	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-35	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-12	200-BP-5	1298.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-9	200-BP-5	1901.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-13	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E27-14	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-155	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-21	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-22	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-23	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-24	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-4	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



P2RGWM_u238_0.png (DoubleFigure_P2RGWM.mxd)

Figure B-71 - Plan view contours of the uranium plume at simulation time 0 years based on the base case simulation using average concentration initial conditions



P2RGWM_u238_5.png (DoubleFigure_P2RGWM.mxd)

Figure B-72 - Plan view contours of the uranium plume at simulation time 5 years based on the base case simulation using average concentration initial conditions

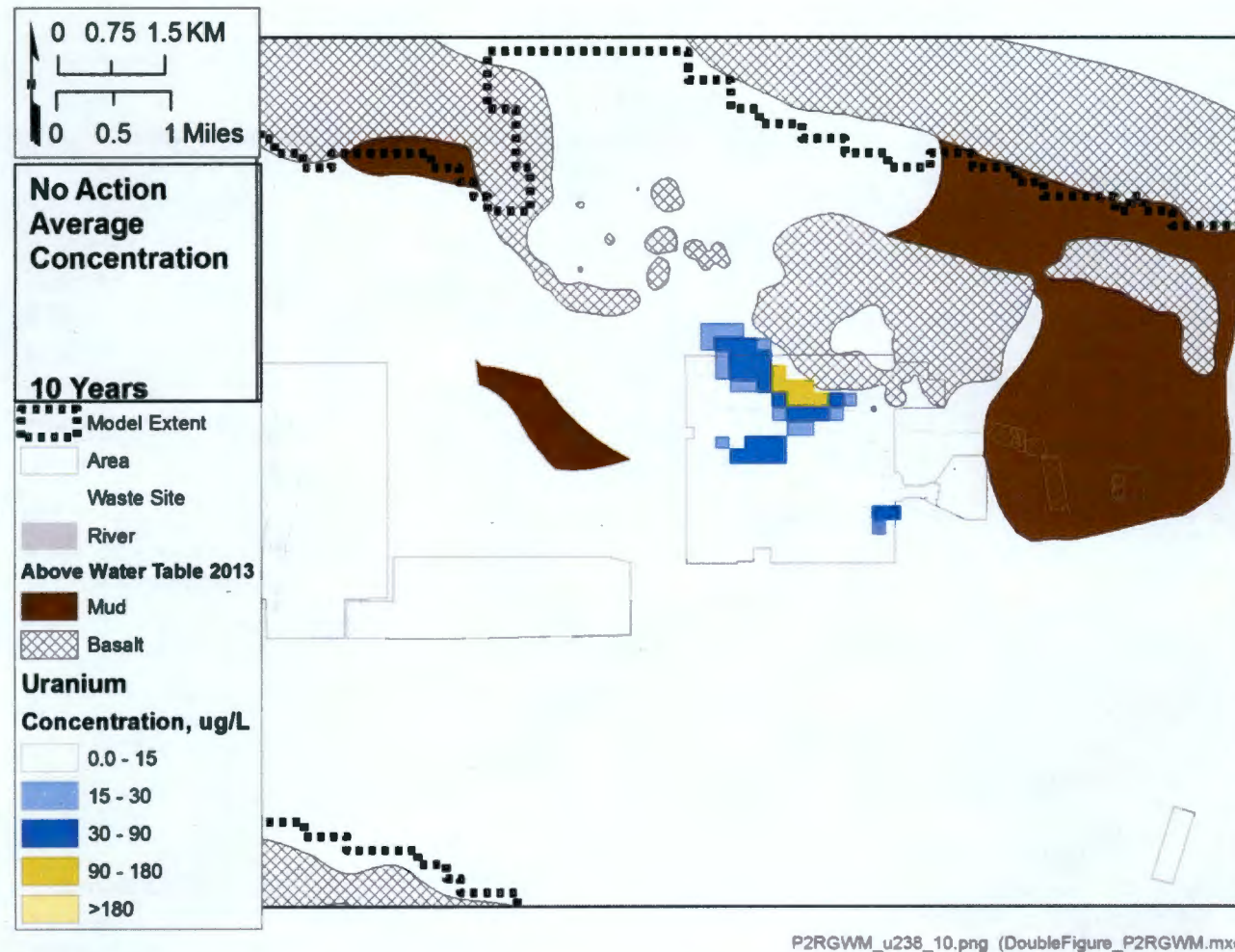
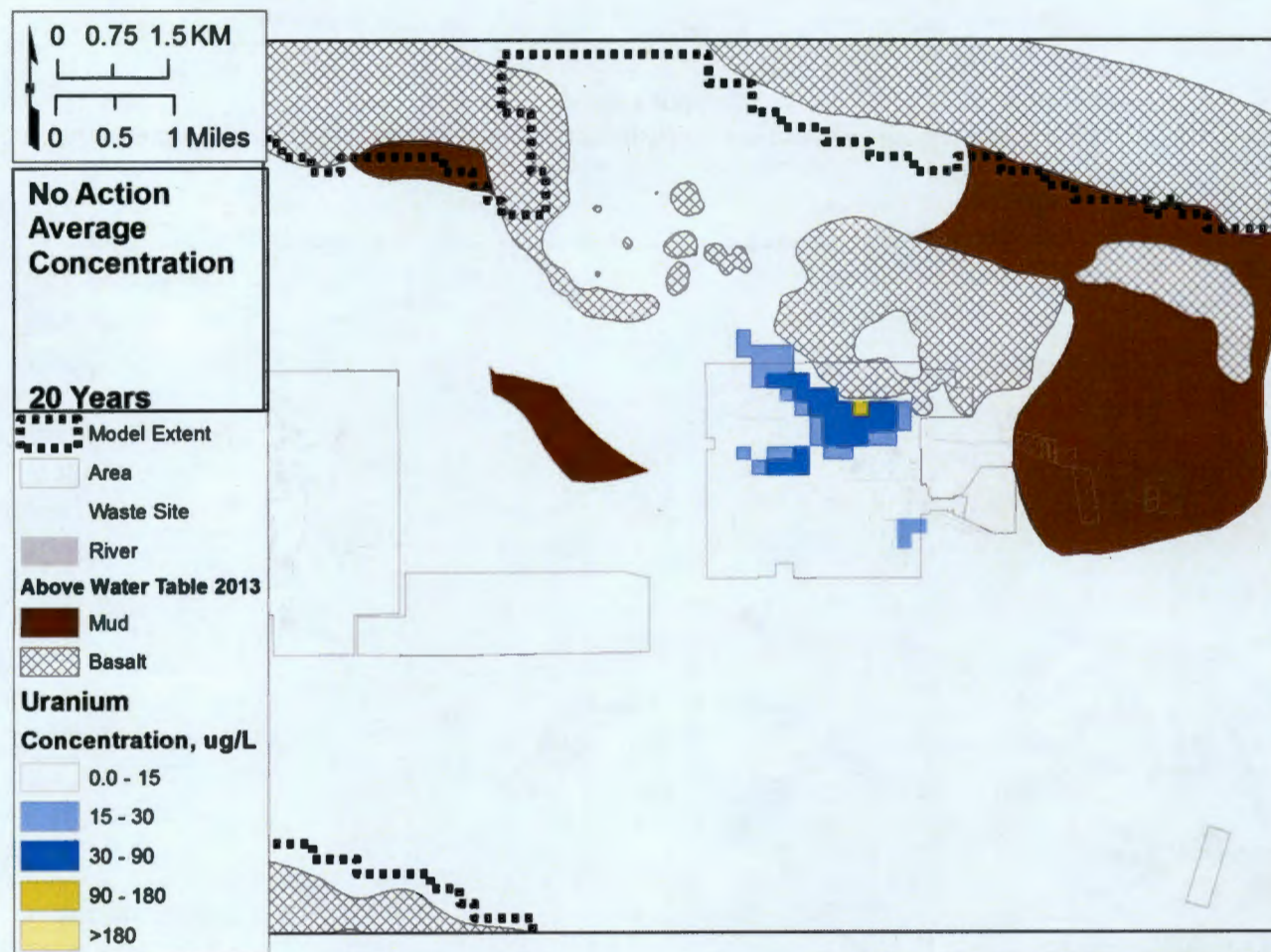


Figure B-73 - Plan view contours of the uranium plume at simulation time 10 years based on the base case simulation using average concentration initial conditions



P2RGWM_u238_20.png (DoubleFigure_P2RGWM.mxd)

Figure B-74 - Plan view contours of the uranium plume at simulation time 20 years based on the base case simulation using average concentration initial conditions

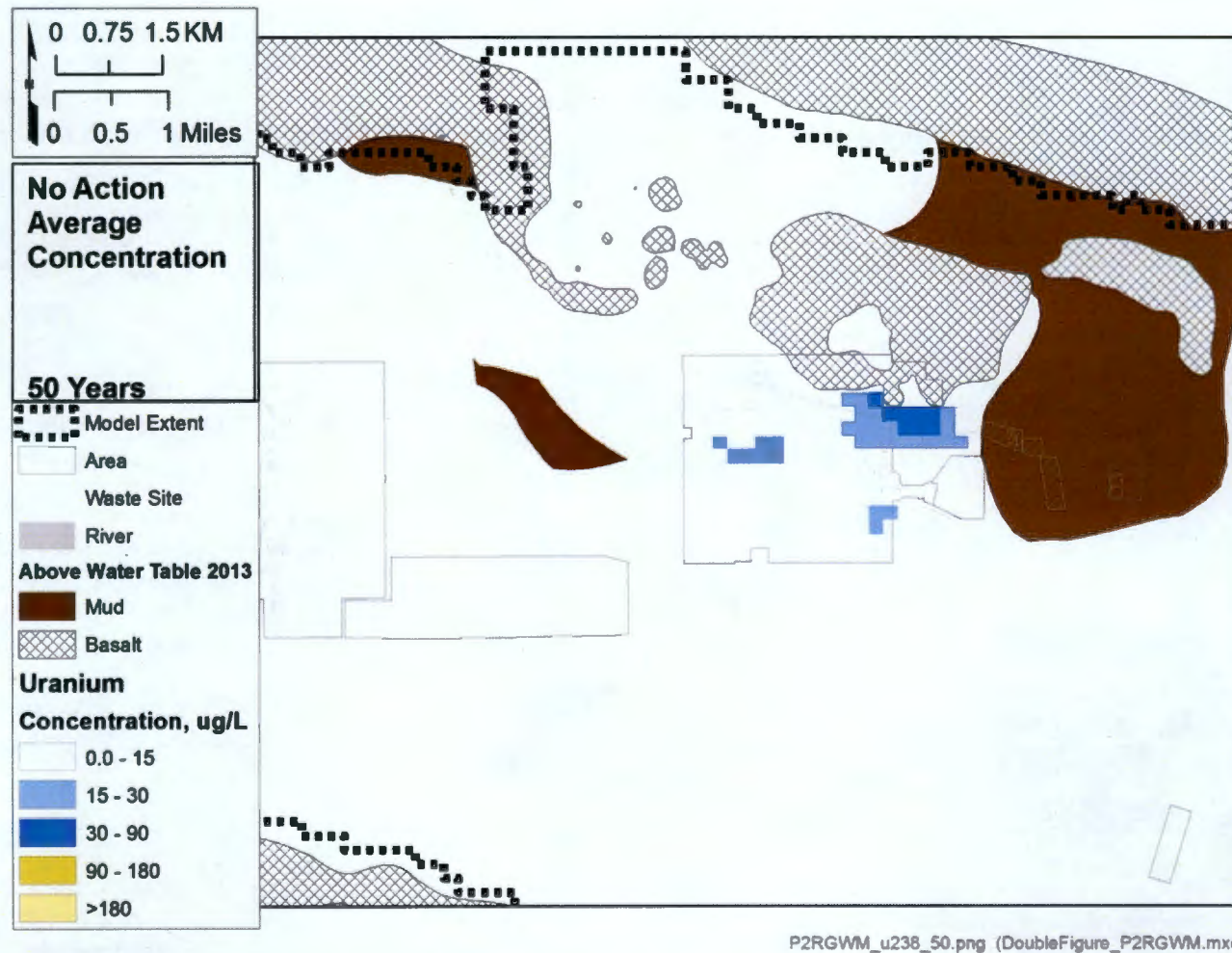
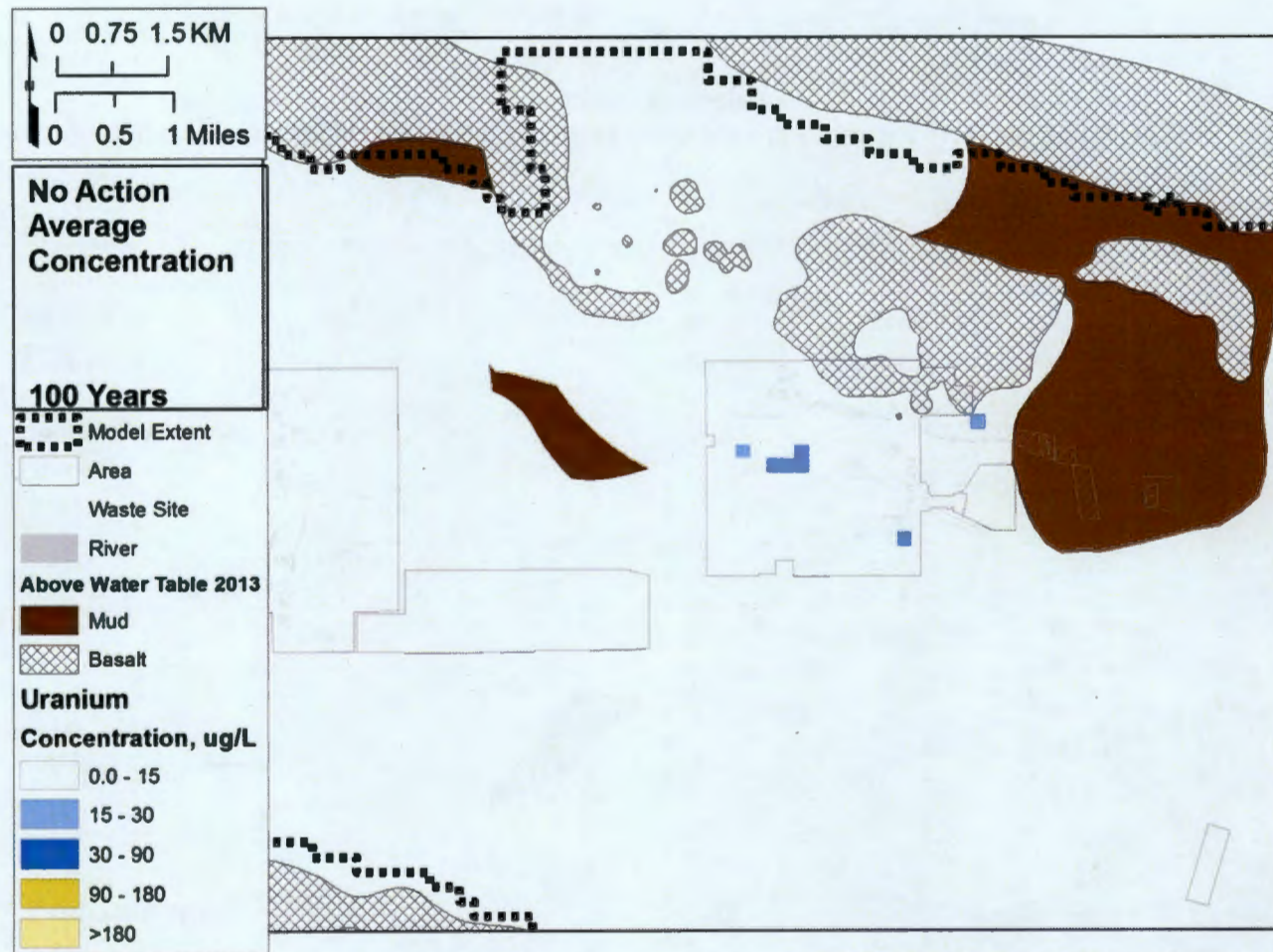


Figure B-75 - Plan view contours of the uranium plume at simulation time 50 years based on the base case simulation using average concentration initial conditions



P2RGWM_u238_100.png (DoubleFigure_P2RGWM.mxd)

Figure B-76 - Plan view contours of the uranium plume at simulation time 100 years based on the base case simulation using average concentration initial conditions

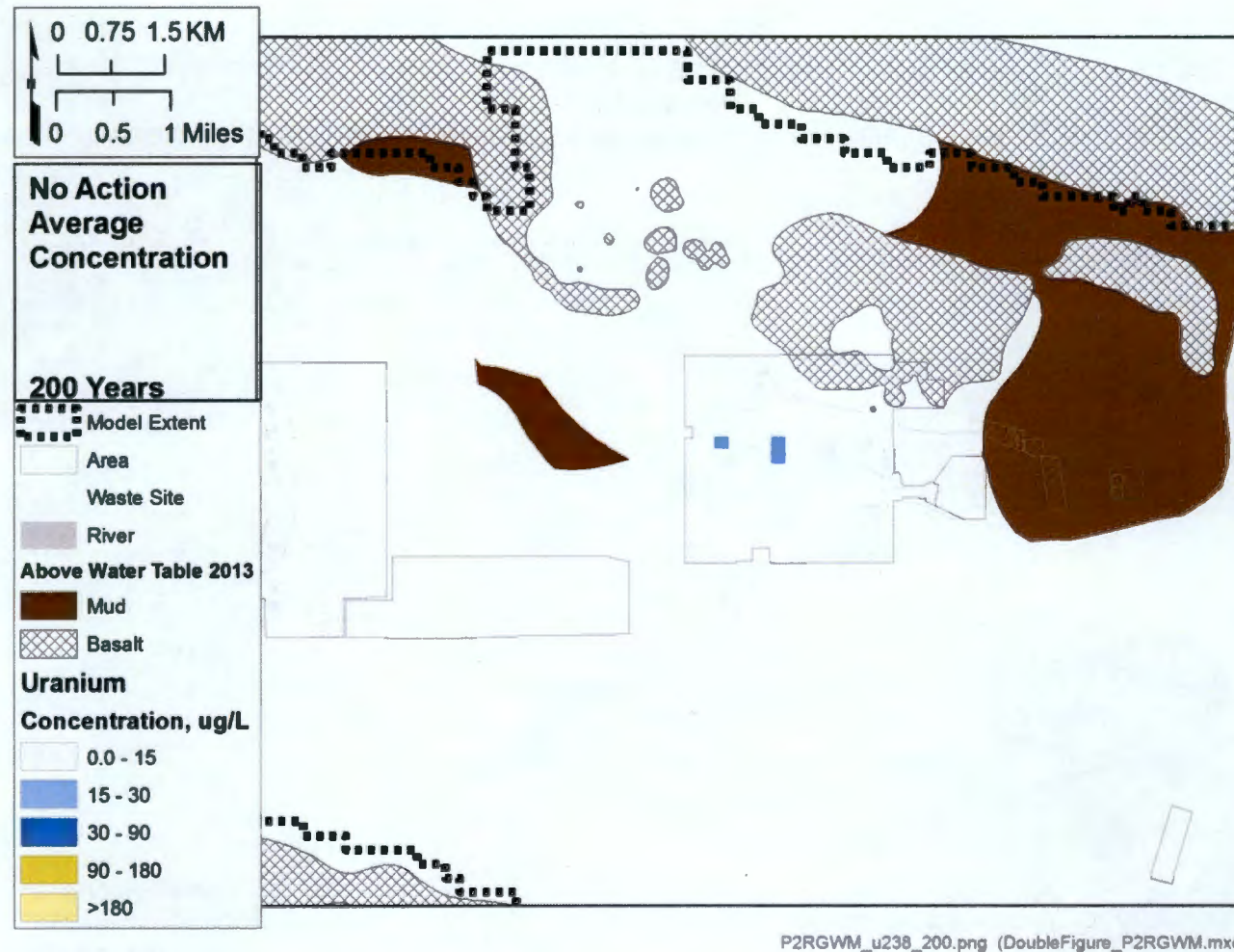
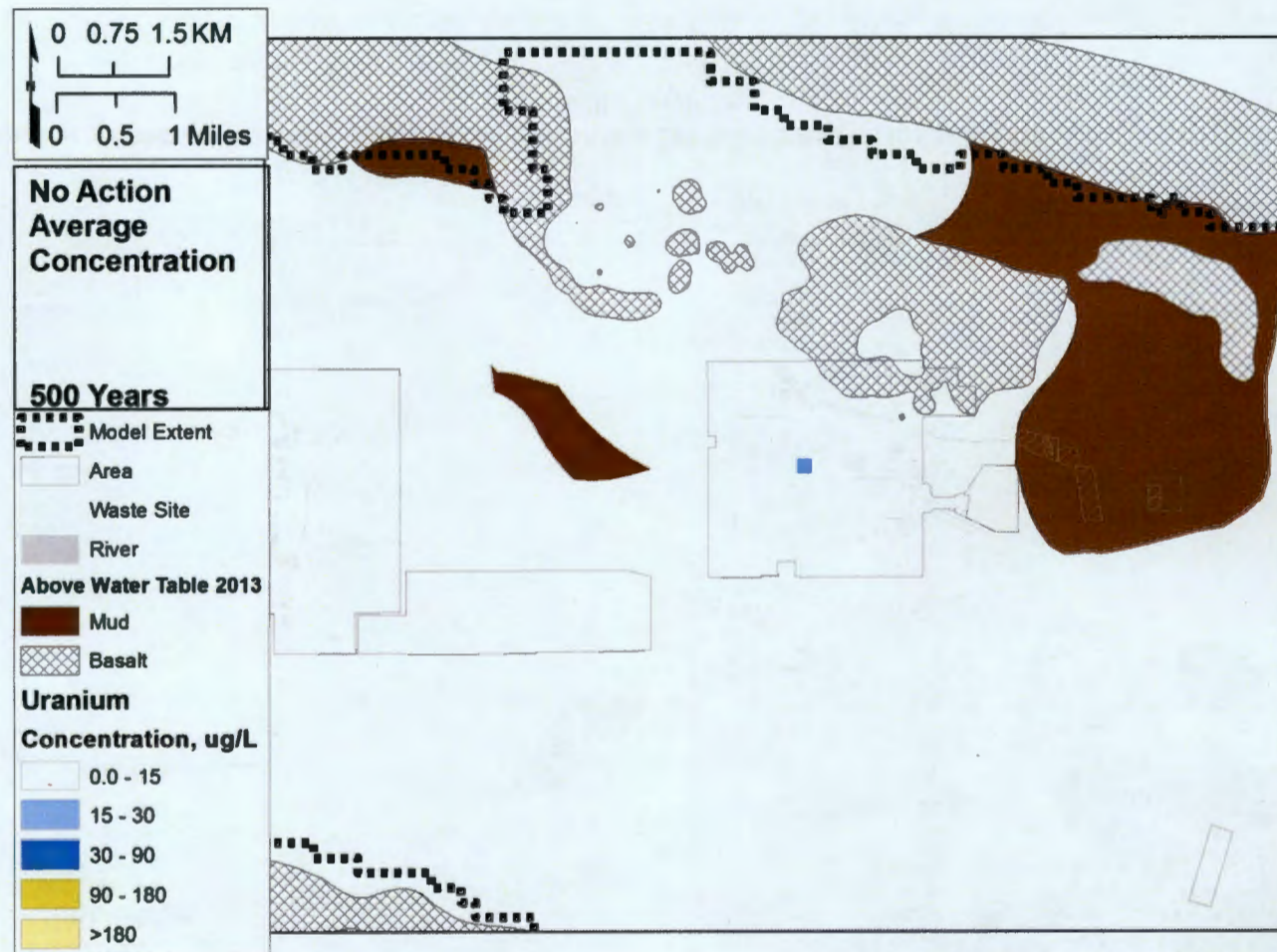


Figure B-77 - Plan view contours of the uranium plume at simulation time 200 years based on the base case simulation using average concentration initial conditions



P2RGWM_u238_500.png (DoubleFigure_P2RGWM.mxd)

Figure B-78 - Plan view contours of the uranium plume at simulation time 500 years based on the base case simulation using average concentration initial conditions

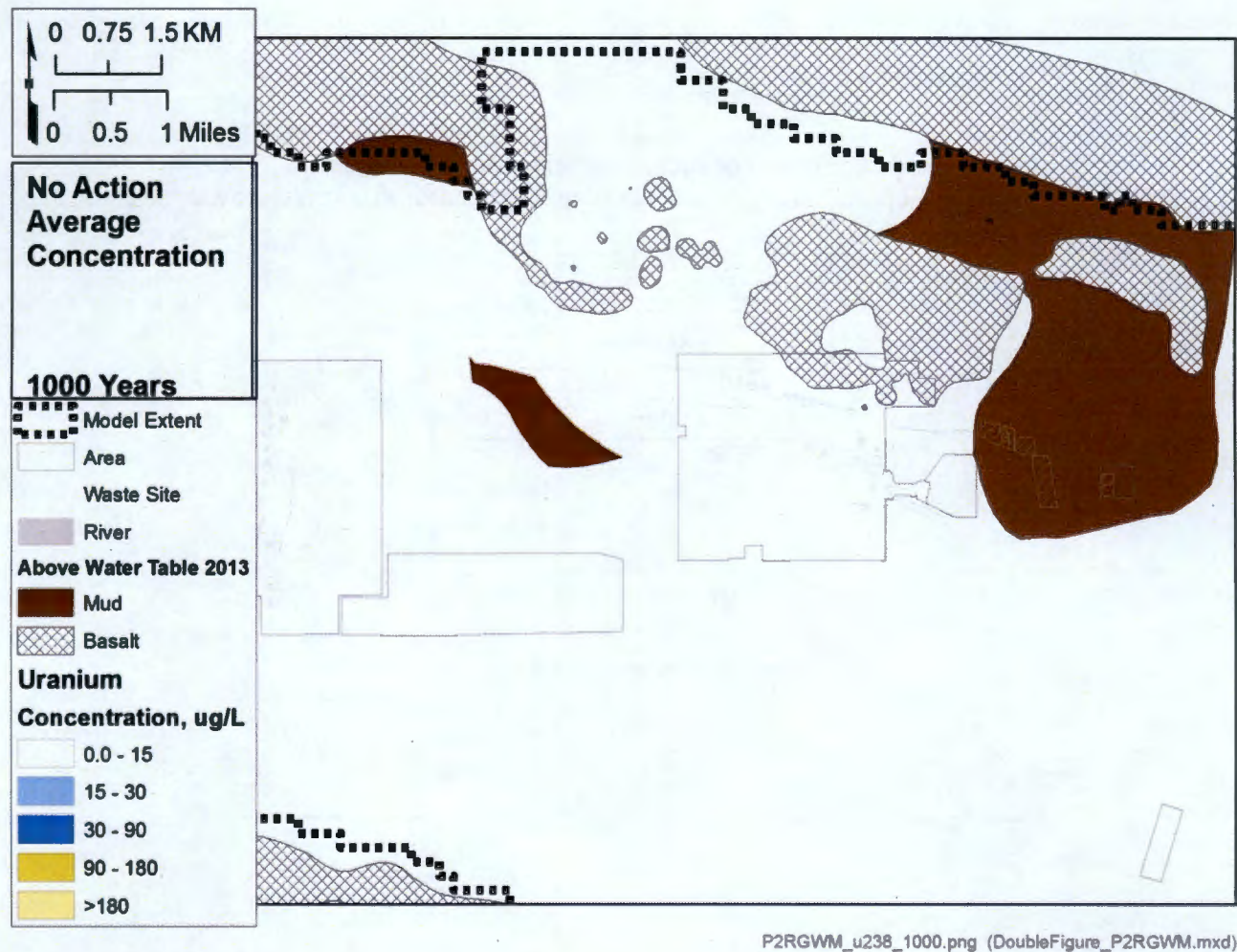


Figure B-79 - Plan view contours of the uranium plume at simulation time 1000 years based on the base case simulation using average concentration initial conditions

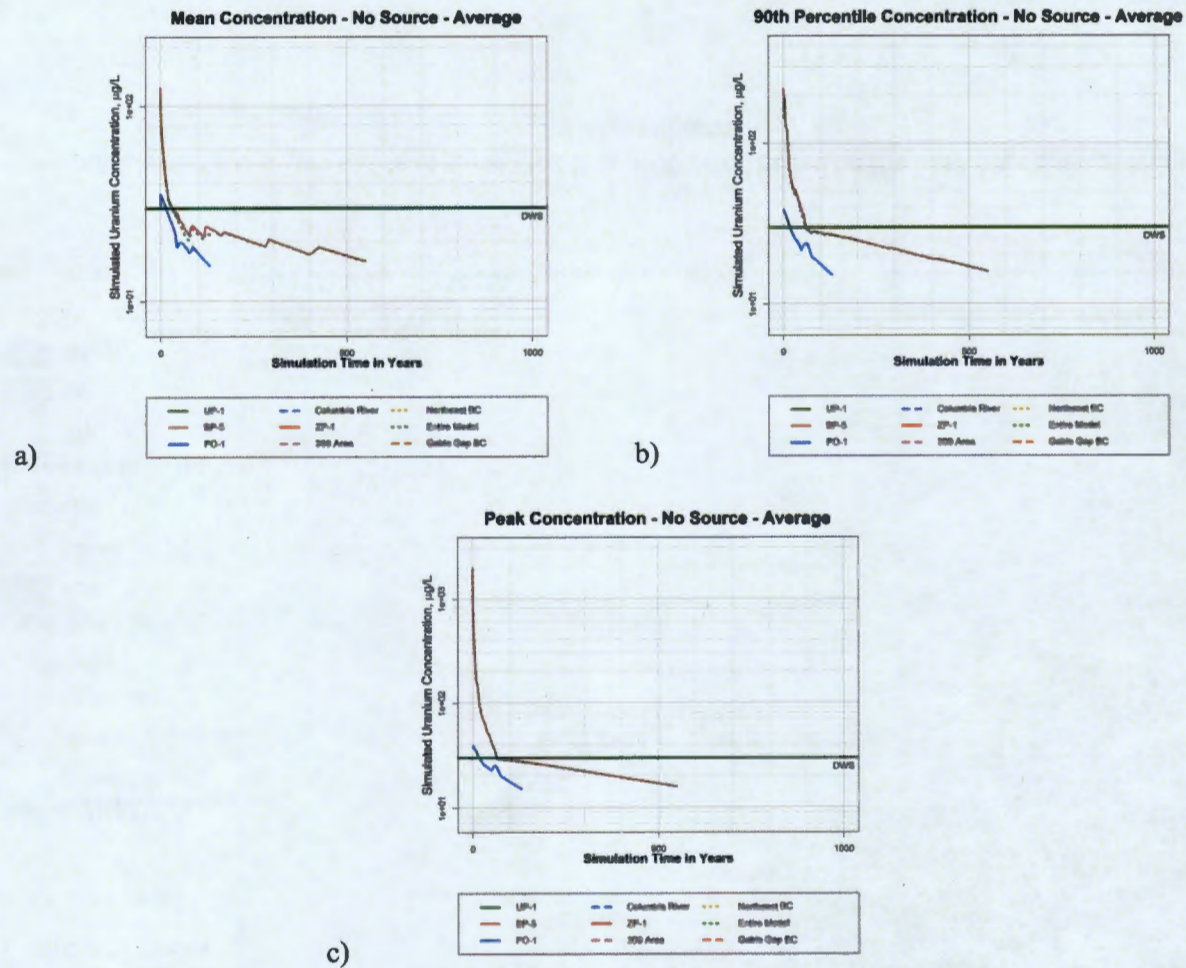


Figure B-80 - Statistical summary of simulated concentration within subregions of the model domain for the uranium plume for the base case simulation using average concentration initial conditions.

Table 8 - Summary of simulated concentrations (µg/L) at selected well locations within the model domain for the uranium base case simulation using the average concentration condition.

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
699-42-42B	200-PO-1	0.0	0.0	0.4	1.6	1.5	1.3	1.2	1.2	1.2	1.1	1.0	0.9	0.8	0.7	0.6	0.5	0.5
699-43-44	200-PO-1	0.0	0.0	0.0	0.7	1.0	1.0	1.0	0.9	0.9	1.0	1.0	0.9	0.8	0.7	0.6	0.6	0.5
699-43-45	200-PO-1	0.0	1.0	24.4	19.2	5.6	1.7	1.7	1.6	1.6	1.3	1.1	1.0	0.8	0.7	0.6	0.5	0.4
699-45-42	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-1	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-14	200-PO-1	6.4	5.7	5.0	4.5	4.0	3.7	3.3	3.1	2.8	2.2	1.7	1.4	1.1	0.9	0.8	0.7	0.5
299-E17-22	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-23	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-25	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-16	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-23	200-PO-1	17.4	13.1	9.7	7.2	5.4	4.2	3.4	2.8	2.3	1.6	1.5	1.4	1.2	1.1	0.9	0.8	0.7
299-E25-19	200-PO-1	1.8	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-20	200-PO-1	1.2	0.0	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-3	200-PO-1	7.7	2.5	1.5	1.0	0.7	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-36	200-PO-1	26.0	17.8	12.1	8.4	6.0	4.4	3.4	2.8	2.2	1.7	1.5	1.3	1.1	0.9	0.8	0.7	0.6
699-37-47A	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-20	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-34	200-PO-1	0.0	0.0	4.0	3.4	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-93	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-4	200-PO-1	0.0	0.9	7.6	4.0	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	0.0	1.0	24.4	19.2	5.6	1.7	1.7	1.6	1.6	1.3	1.1	1.0	0.8	0.7	0.6	0.5	0.4
CMAX	200-PO-1	38.7	27.3	23.0	20.1	17.6	15.6	13.8	12.6	11.0	7.4	5.2	3.8	2.8	2.2	1.9	1.6	1.6
299-E24-25	200-BP-5	0.0	0.0	0.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-2	200-BP-5	2.3	2.5	1.0	0.6	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-23	200-BP-5	1.3	4.0	2.1	1.1	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.7	0.8
299-E28-24	200-BP-5	1.3	4.0	2.2	1.1	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.8	0.8
299-E28-30	200-BP-5	14.3	13.6	13.0	12.4	11.9	11.4	11.0	10.6	10.2	8.9	7.9	7.1	6.6	6.3	6.0	5.7	5.3
299-E29-54	200-BP-5	34.7	25.1	17.6	12.8	9.5	7.3	5.6	3.9	2.5	0.8	0.7	0.6	0.6	0.6	0.6	0.5	0.5
299-E33-16	200-BP-5	307.6	29.3	7.8	2.3	1.0	0.6	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-18	200-BP-5	648.3	22.8	5.6	1.6	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-1A	200-BP-5	172.2	24.8	6.9	2.3	1.1	0.6	0.5	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-2	200-BP-5	140.0	24.0	6.7	2.2	1.1	0.7	0.5	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-205	200-BP-5	407.9	19.9	5.0	1.4	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-26	200-BP-5	71.9	14.4	2.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-3	200-BP-5	115.9	23.9	6.7	2.3	1.1	0.7	0.5	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-31	200-BP-5	245.7	24.1	6.0	1.9	0.8	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-32	200-BP-5	175.5	13.9	3.1	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-337	200-BP-5	369.9	14.7	3.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-339	200-BP-5	719.6	13.6	2.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E33-341	200-BP-5	120.2	22.7	6.2	2.1	1.0	0.6	0.5	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-342	200-BP-5	207.3	25.3	6.9	2.2	1.0	0.6	0.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-343	200-BP-5	703.7	21.1	5.2	1.5	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-345	200-BP-5	645.6	23.0	5.7	1.6	0.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-38	200-BP-5	182.8	24.3	6.5	2.2	1.0	0.6	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-4	200-BP-5	85.1	23.1	6.5	2.3	1.1	0.7	0.5	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-41	200-BP-5	761.6	18.8	4.6	1.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-42	200-BP-5	205.3	19.0	4.6	1.3	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-43	200-BP-5	155.8	11.8	2.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-44	200-BP-5	387.2	26.1	7.1	2.2	1.0	0.6	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-47	200-BP-5	421.7	20.5	4.5	1.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-49	200-BP-5	584.3	12.3	2.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-5	200-BP-5	166.8	23.7	6.4	2.1	1.0	0.6	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-7	200-BP-5	78.9	22.1	6.2	2.2	1.1	0.7	0.5	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-9	200-BP-5	322.0	26.0	7.0	2.2	1.0	0.6	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-49-57A	200-BP-5	0.0	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-50-56	200-BP-5	0.0	1.6	1.6	1.5	1.5	1.4	1.3	1.3	1.2	1.0	0.9	0.7	0.6	0.6	0.5	0.4	0.4
699-50-59	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-55C	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-55-57	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-57-59	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-60-60	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-61-62	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-47B	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-48A	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-54-49	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-27	200-BP-5	0.4	2.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-10	200-BP-5	33.4	6.1	1.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-6	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-7	200-BP-5	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-9	200-BP-5	18.7	2.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-29	200-BP-5	7.9	5.8	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-34	200-BP-5	43.4	9.2	2.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-35	200-BP-5	55.1	11.0	2.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-10	200-BP-5	0.0	62.2	25.0	4.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-12	200-BP-5	7.2	47.7	5.9	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-9	200-BP-5	40.1	7.8	1.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-13	200-BP-5	0.0	6.3	14.2	5.5	1.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E27-14	200-BP-5	0.0	5.4	15.0	6.0	1.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-155	200-BP-5	0.0	5.1	9.7	3.7	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-21	200-BP-5	0.0	3.2	8.6	3.5	1.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-22	200-BP-5	0.0	23.8	21.8	4.8	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-23	200-BP-5	0.0	5.0	11.6	4.6	1.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-24	200-BP-5	0.0	3.8	10.6	4.3	1.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-4	200-BP-5	0.0	7.2	14.6	5.5	1.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

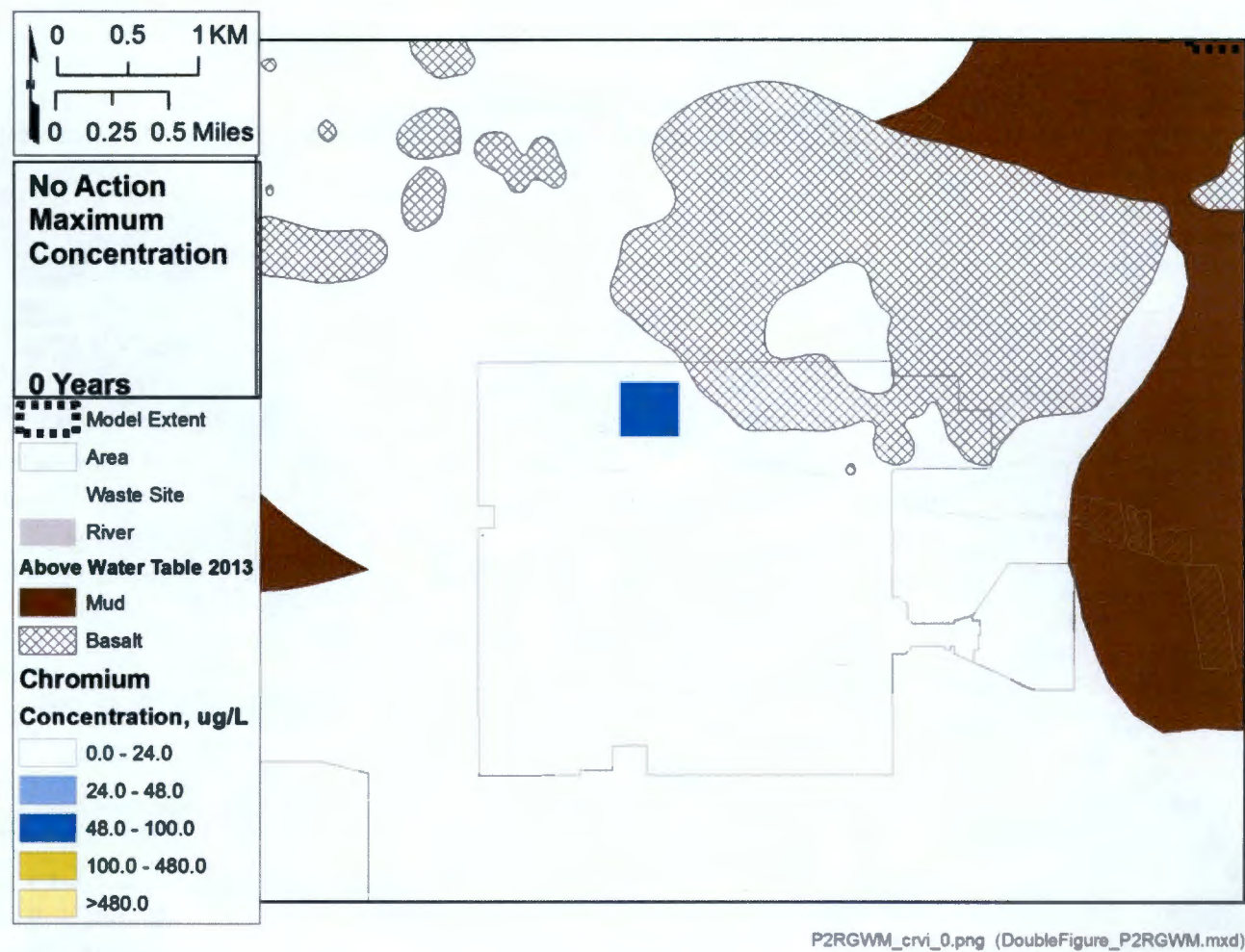
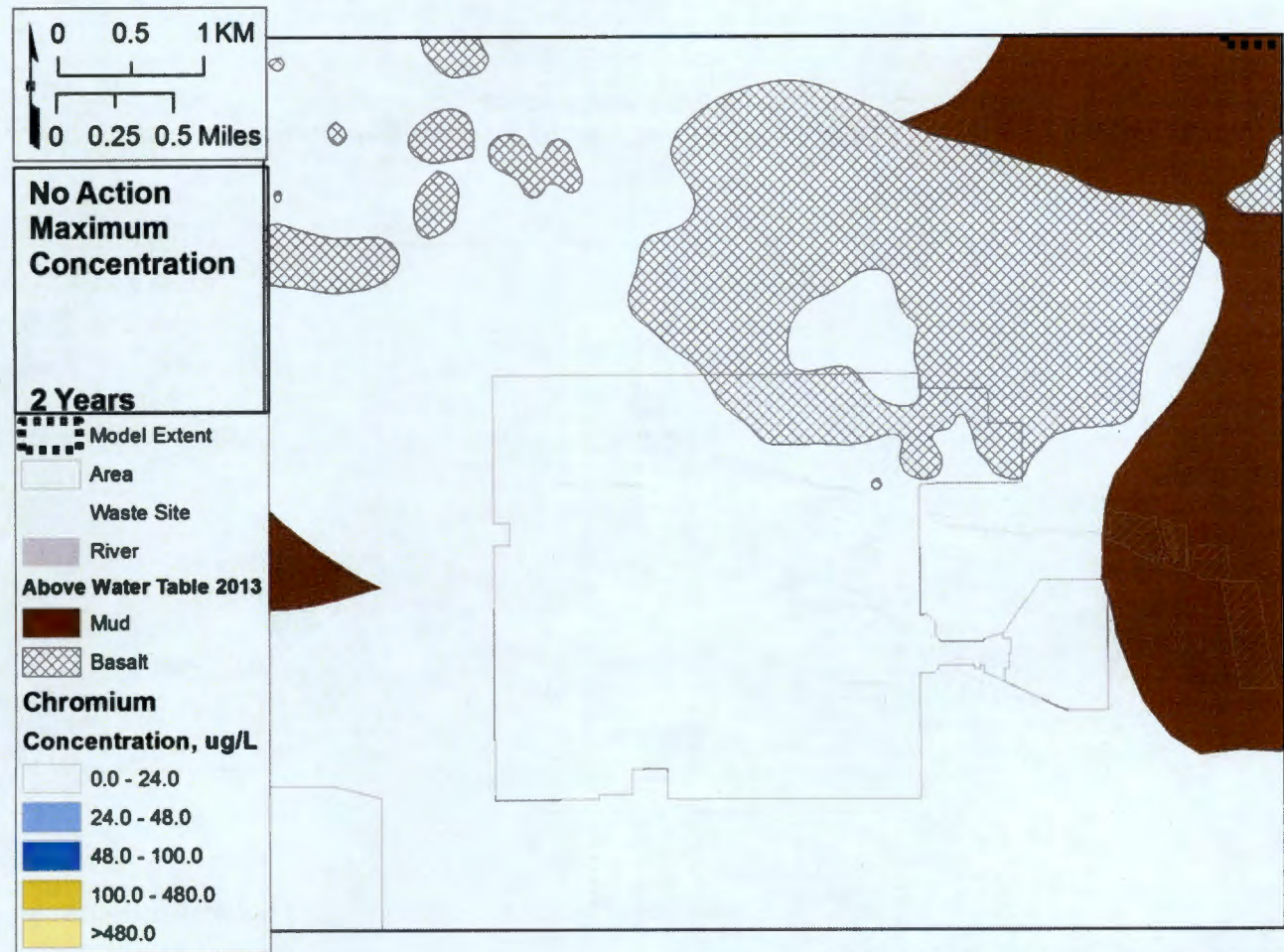


Figure B-81 - Plan view contours of the hexavalent chromium plume at simulation time 0 years based on the base case simulation using maximum concentration initial conditions



P2RGWM_crv1_2.png (DoubleFigure_P2RGWM.mxd)

Figure B-82 - Plan view contours of the hexavalent chromium plume at simulation time 2 years based on the base case simulation using maximum concentration initial conditions

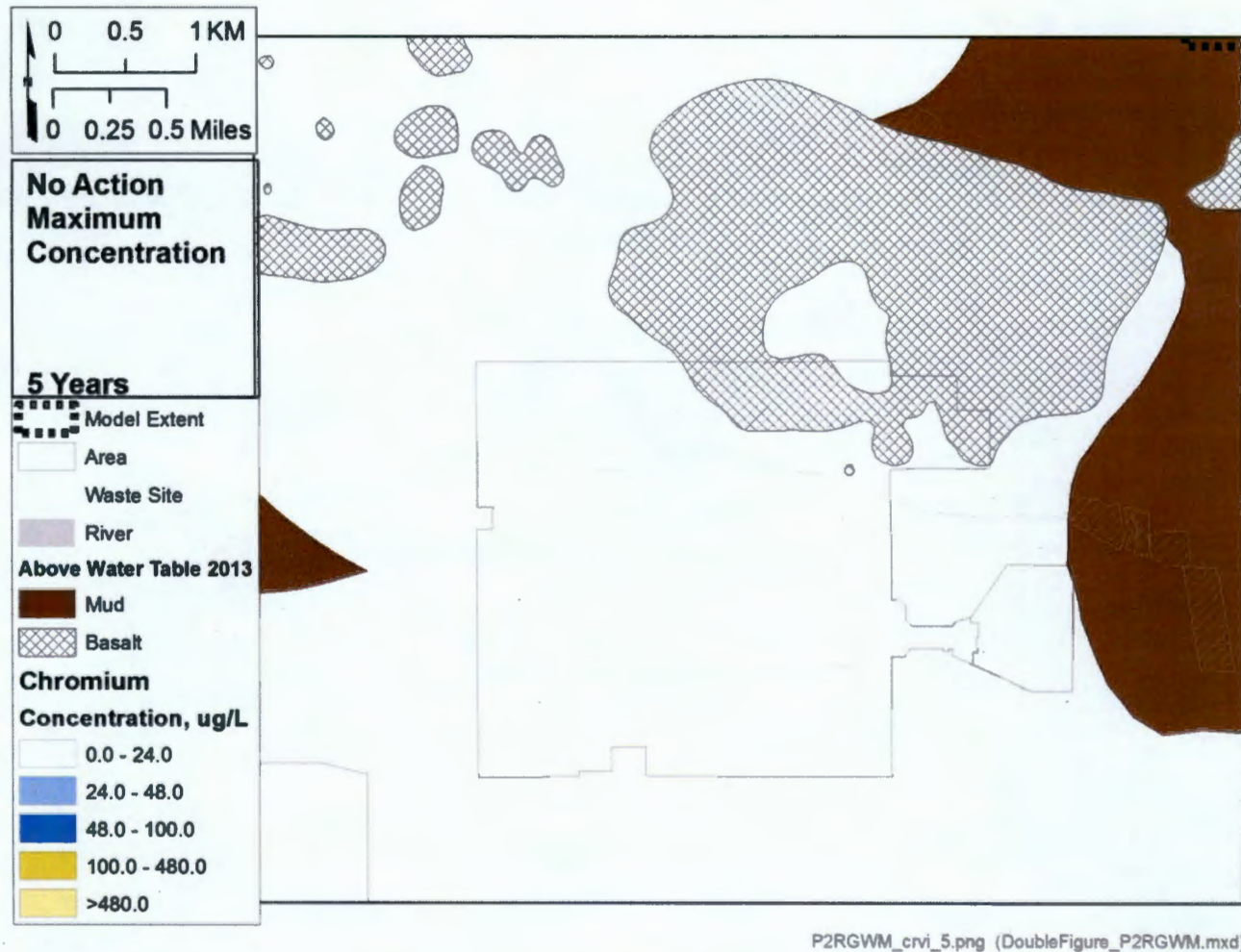


Figure B-83 - Plan view contours of the hexavalent chromium plume at simulation time 5 years based on the base case simulation using maximum concentration initial conditions

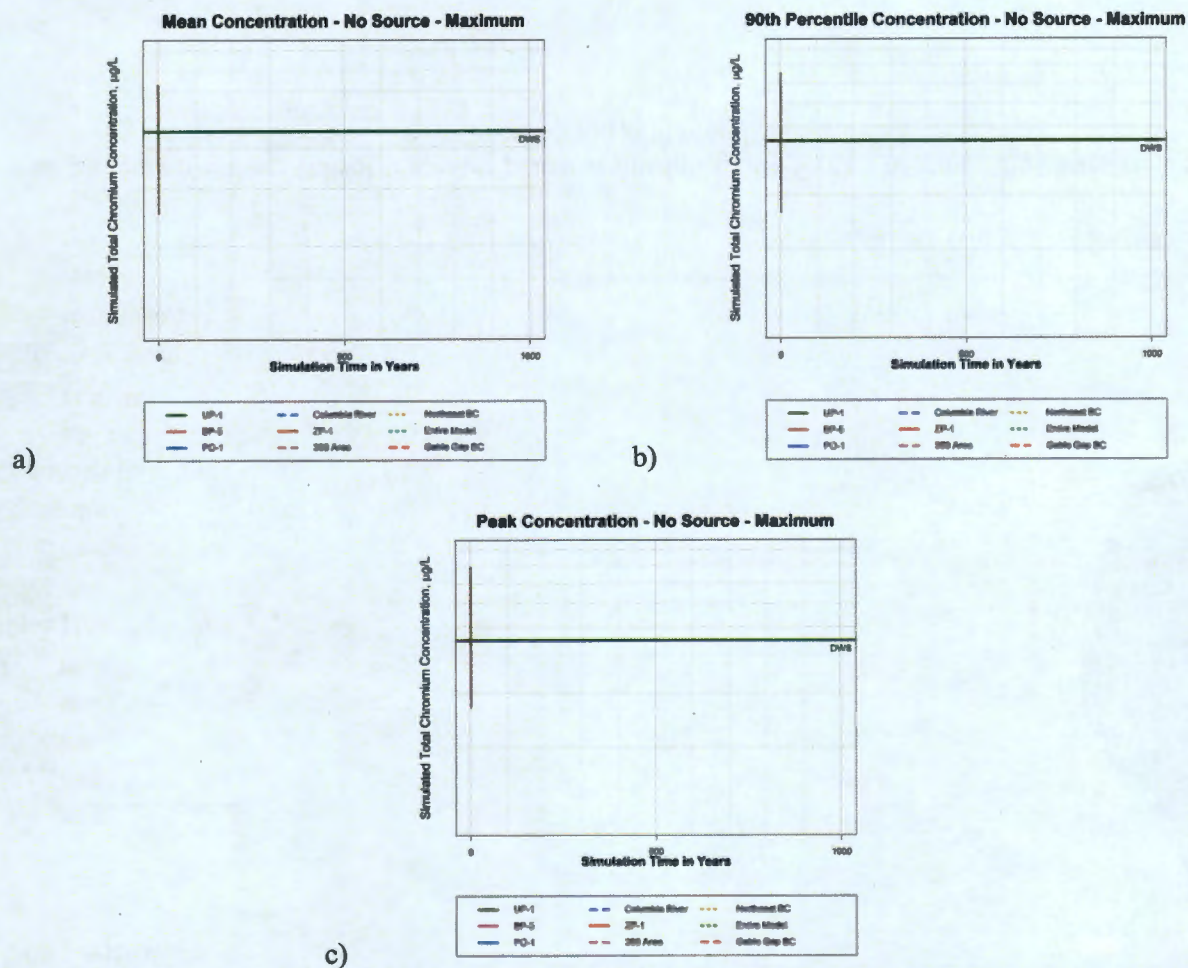


Figure B-84 - Statistical summary of simulated concentration within subregions of the model domain for the hexavalent chromium plume for the base case simulation using maximum concentration initial conditions.

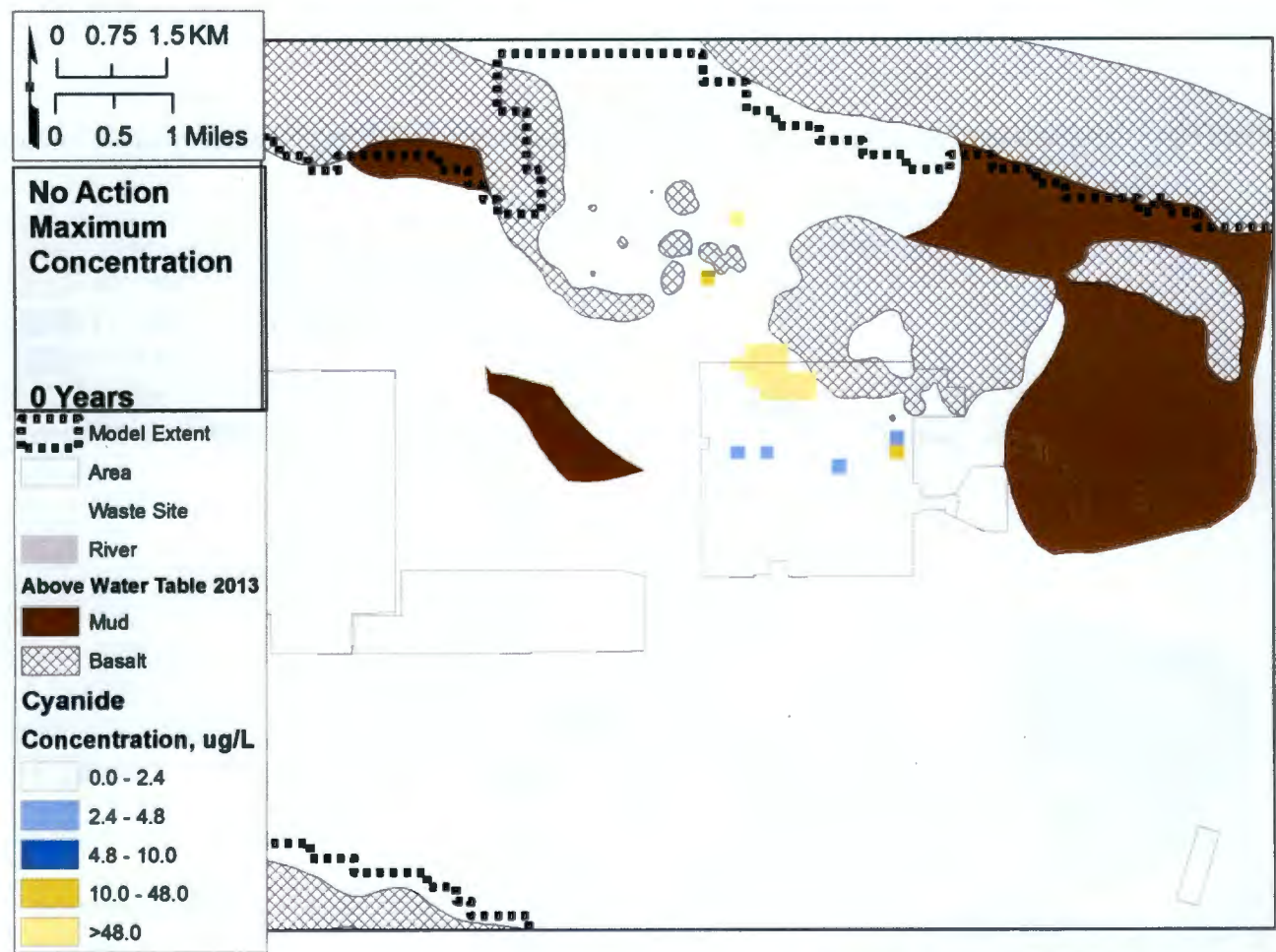
Table 9 - Summary of simulated concentrations (µg/L) at selected well locations within the model domain for the hexavalent chromium base case simulation using the maximum concentration condition.

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
699-42-42B	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-44	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-1	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-14	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-22	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-23	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-25	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-16	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-23	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-19	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-20	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-3	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-36	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-37-47A	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-20	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-34	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-93	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-4	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CMAX	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-25	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-2	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-23	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-24	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-30	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E29-54	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-16	200-BP-5	15.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-18	200-BP-5	14.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-1A	200-BP-5	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-2	200-BP-5	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-205	200-BP-5	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-26	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-3	200-BP-5	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-31	200-BP-5	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-32	200-BP-5	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-337	200-BP-5	13.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-339	200-BP-5	8.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E33-341	200-BP-5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-342	200-BP-5	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-343	200-BP-5	10.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-345	200-BP-5	14.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-38	200-BP-5	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-4	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-41	200-BP-5	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-42	200-BP-5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-43	200-BP-5	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-44	200-BP-5	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-47	200-BP-5	24.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-49	200-BP-5	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-5	200-BP-5	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-7	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-9	200-BP-5	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-49-57A	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-50-56	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-50-59	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-55C	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-55-57	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-57-59	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-60-60	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-61-62	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-47B	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-48A	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-54-49	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-27	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-6	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-7	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-9	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-29	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-34	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-35	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-12	200-BP-5	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-9	200-BP-5	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-13	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E27-14	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-155	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-21	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-22	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-23	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-24	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-4	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



P2RGWM_cyan_0.png (DoubleFigure_P2RGWM.mxd)

Figure B-85 - Plan view contours of the cyanide plume at simulation time 0 years based on the base case simulation using maximum concentration initial conditions

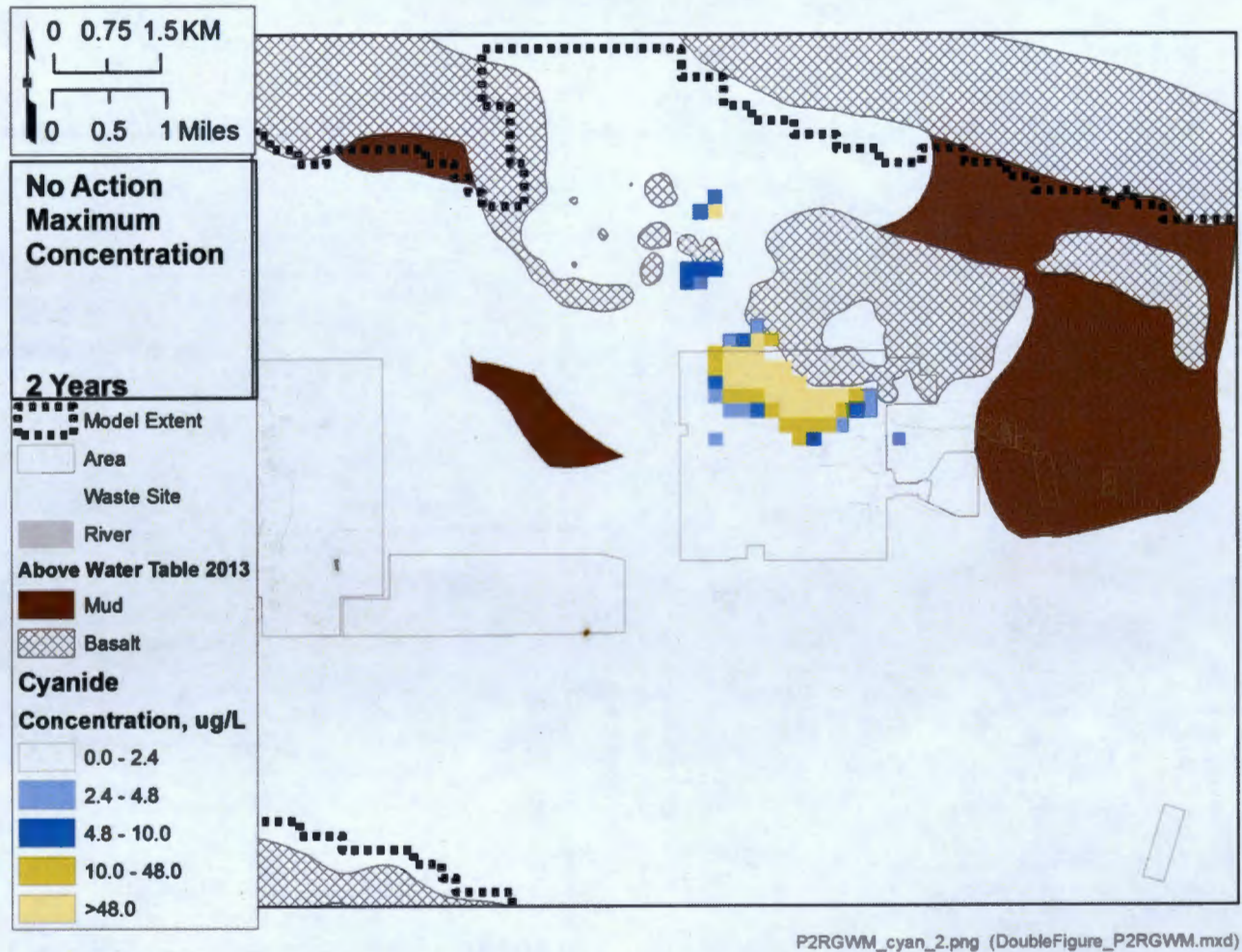
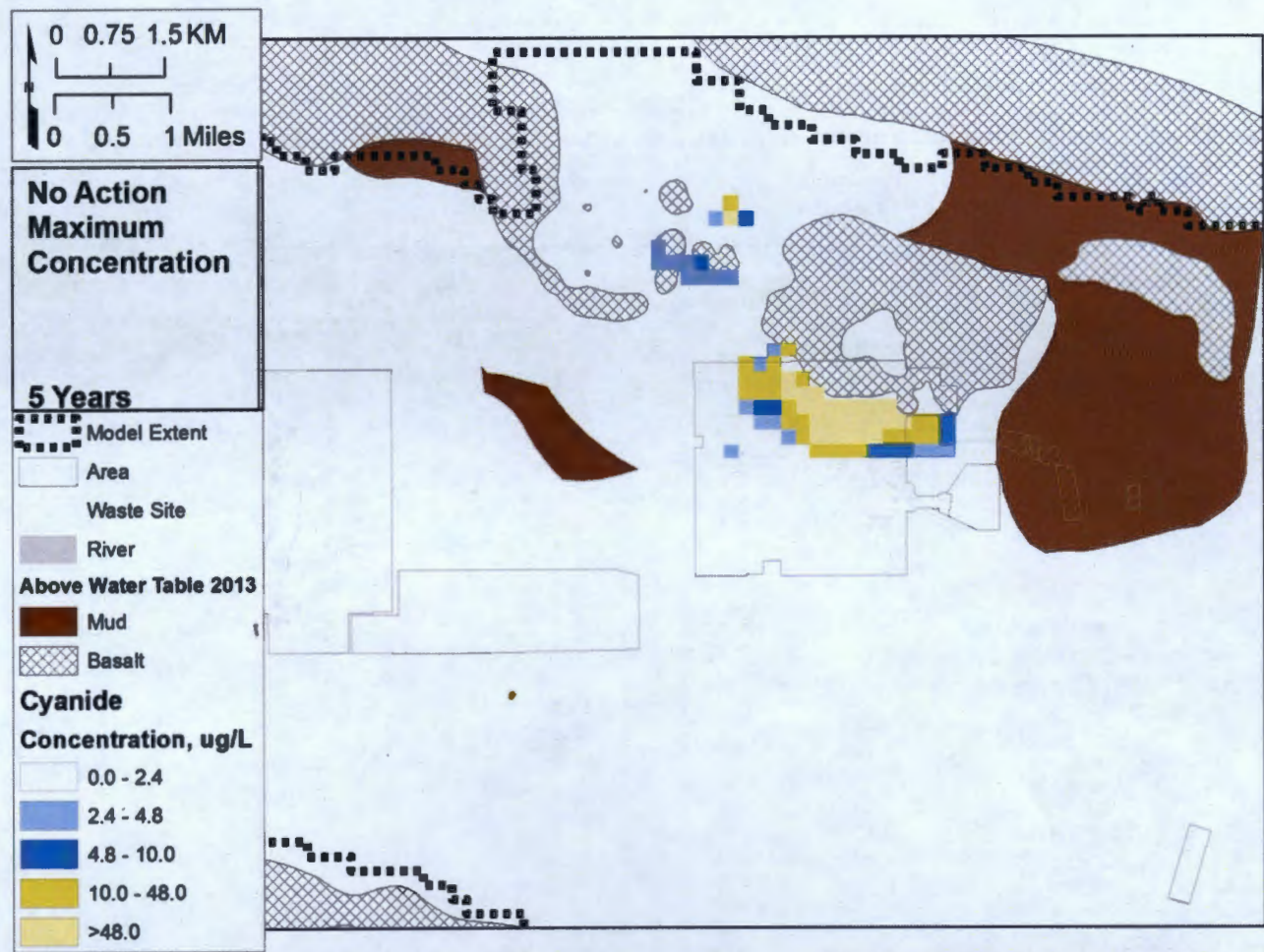


Figure B-86 - Plan view contours of the cyanide plume at simulation time 2 years based on the base case simulation using maximum concentration initial conditions



P2RGWM_cyan_5.png (DoubleFigure_P2RGWM.mxd)

Figure B-87 - Plan view contours of the cyanide plume at simulation time 5 years based on the base case simulation using maximum concentration initial conditions

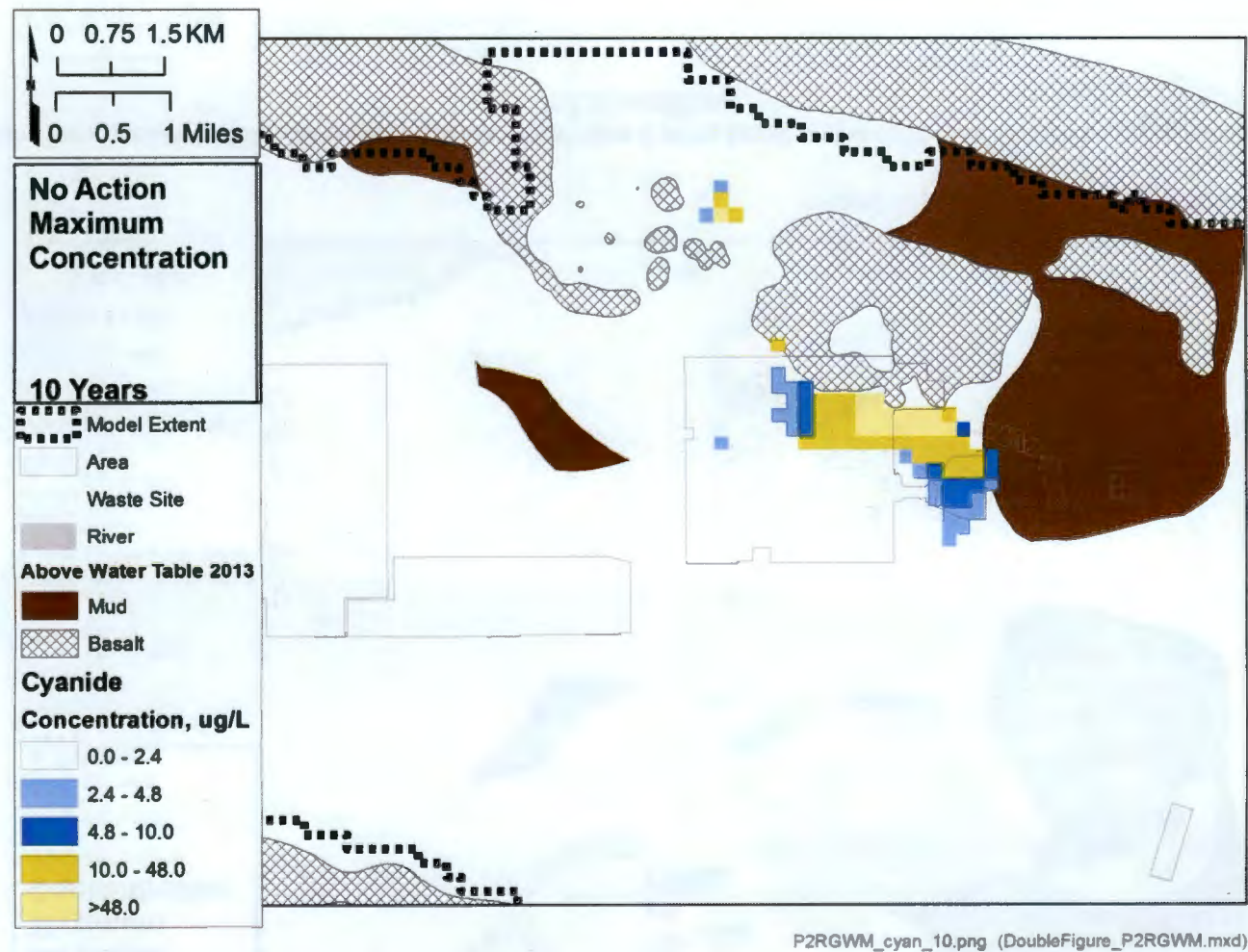


Figure B-88 - Plan view contours of the cyanide plume at simulation time 10 years based on the base case simulation using maximum concentration initial conditions

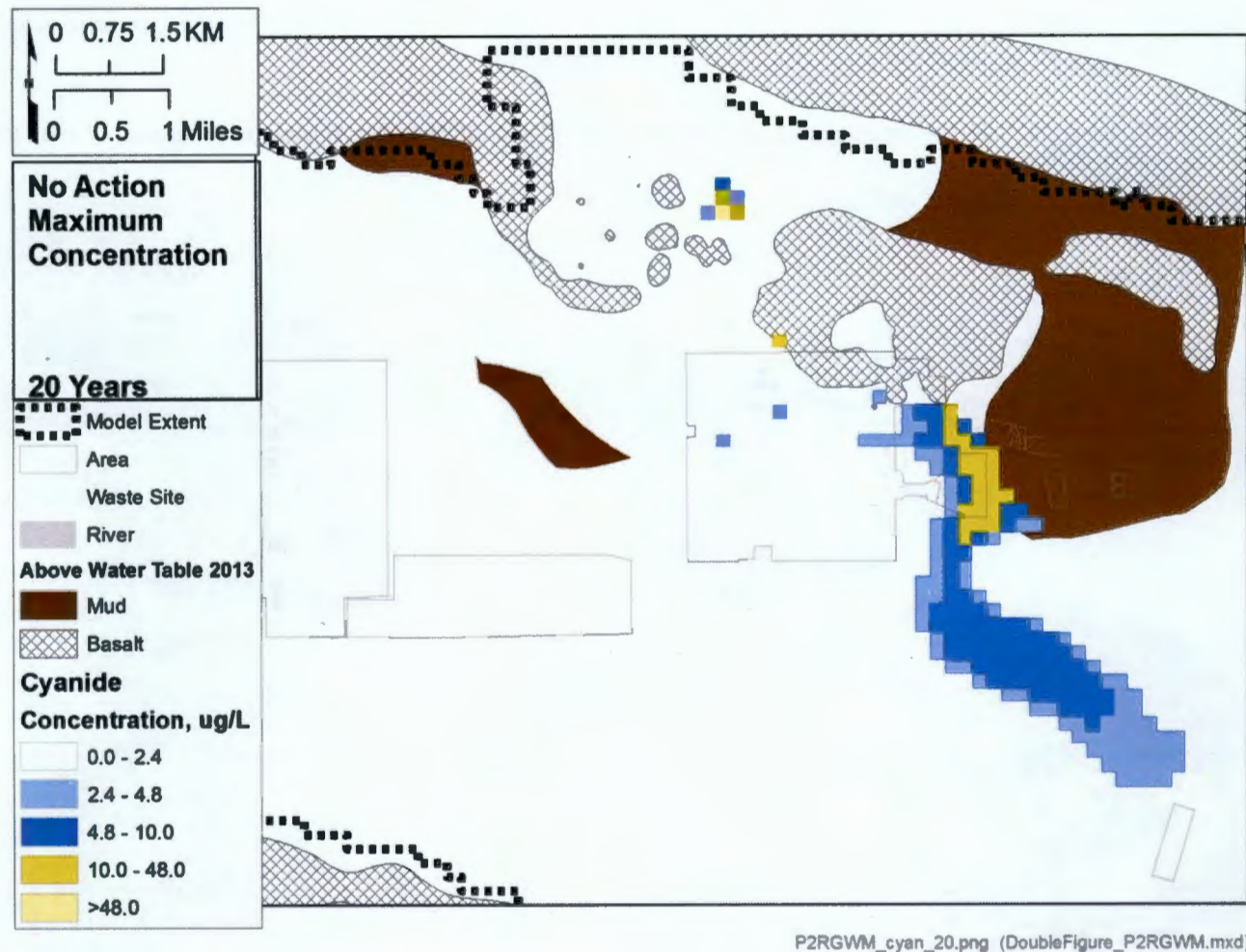
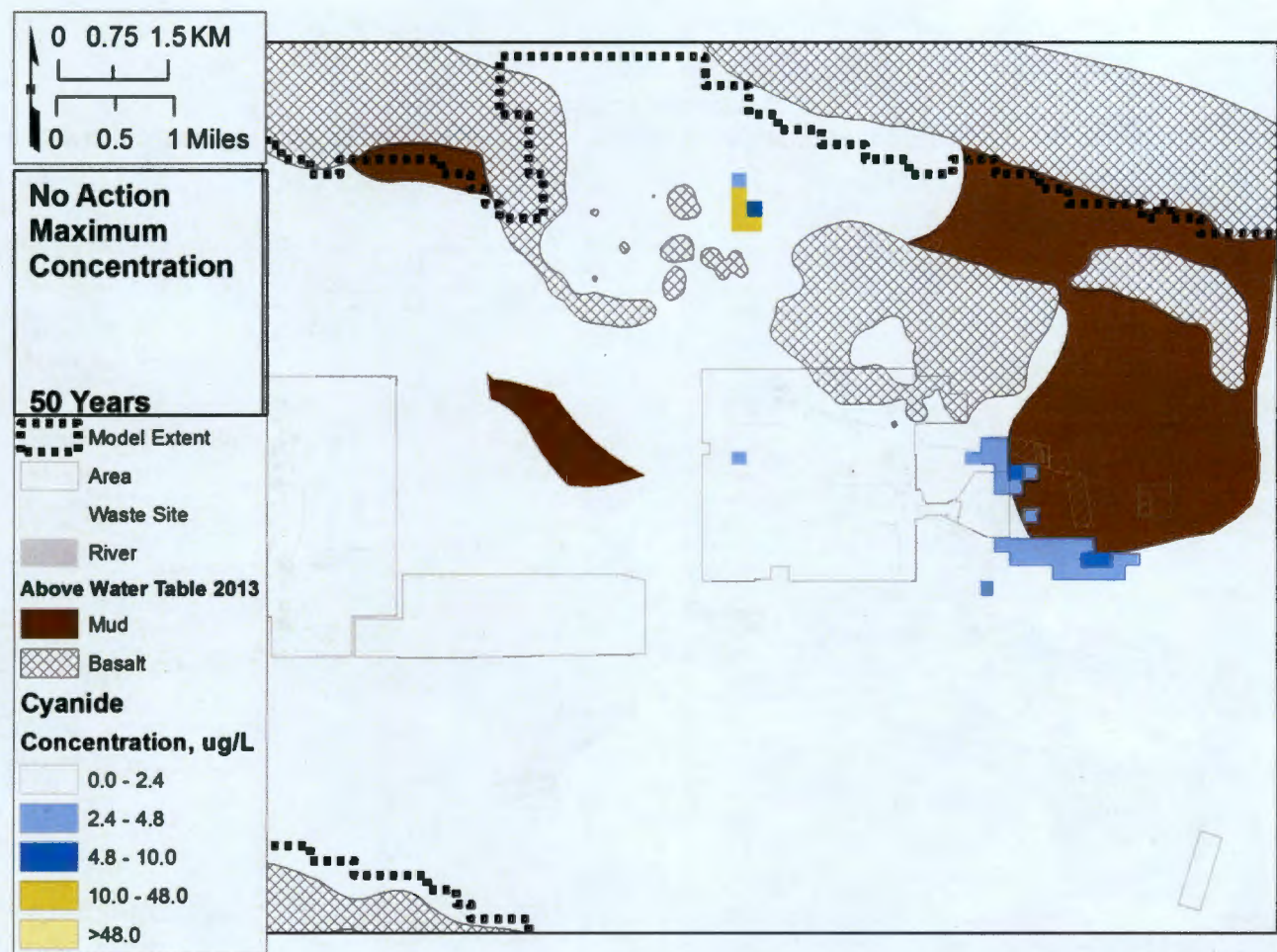


Figure B-89 - Plan view contours of the cyanide plume at simulation time 20 years based on the base case simulation using maximum concentration initial conditions



P2RGWM_cyan_50.png (DoubleFigure_P2RGWM.mxd)

Figure B-90 - Plan view contours of the cyanide plume at simulation time 50 years based on the base case simulation using maximum concentration initial conditions

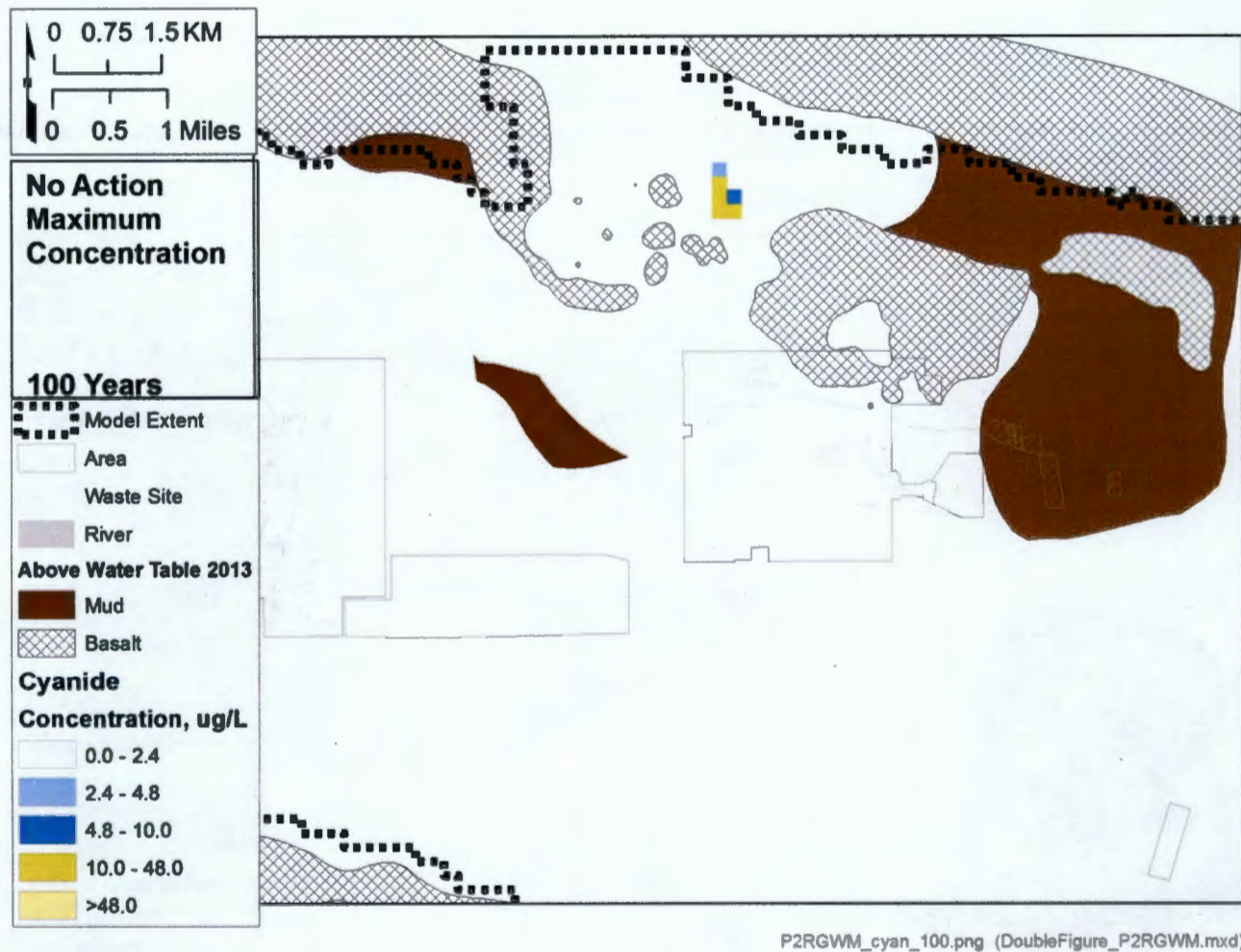
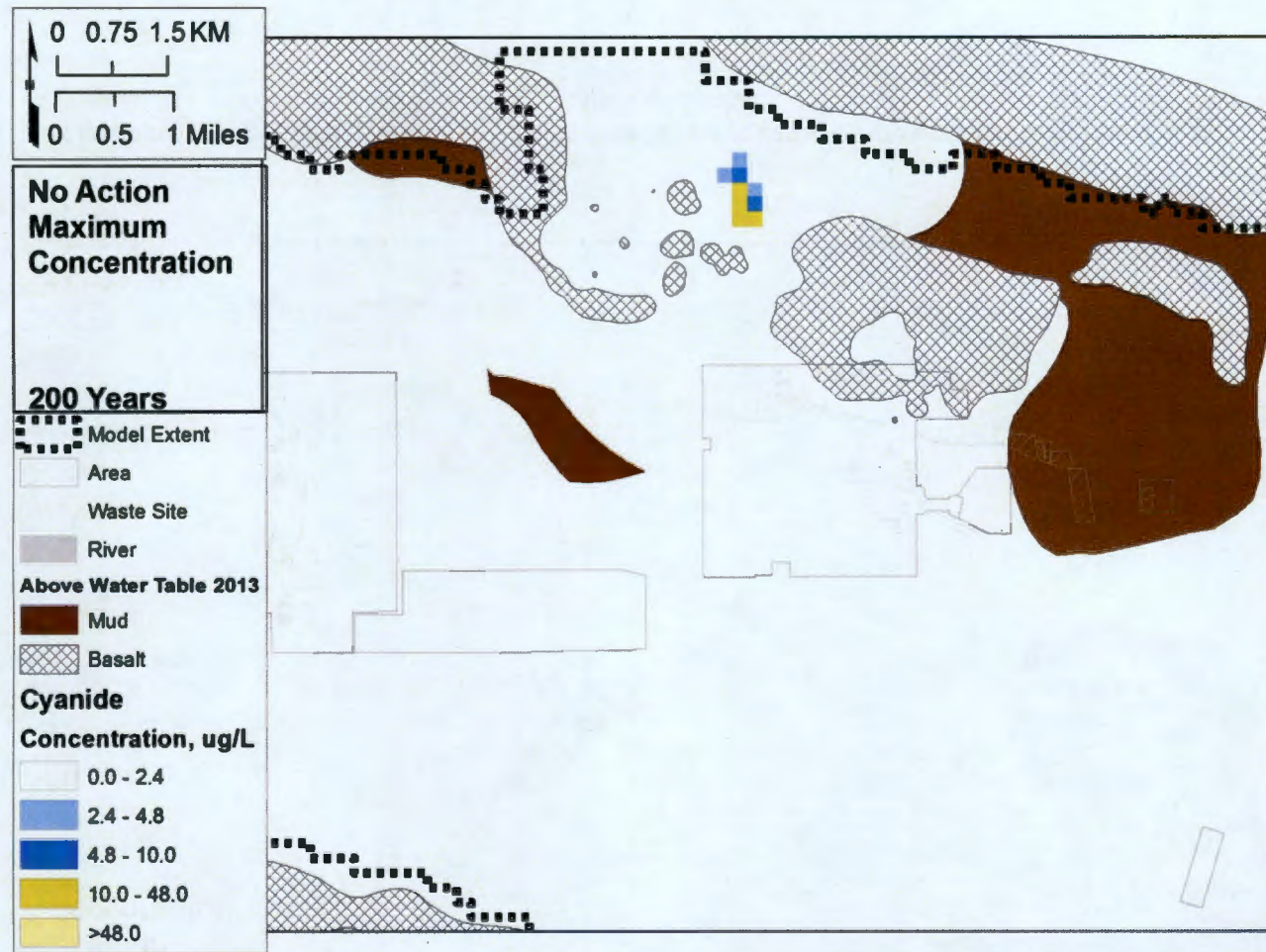
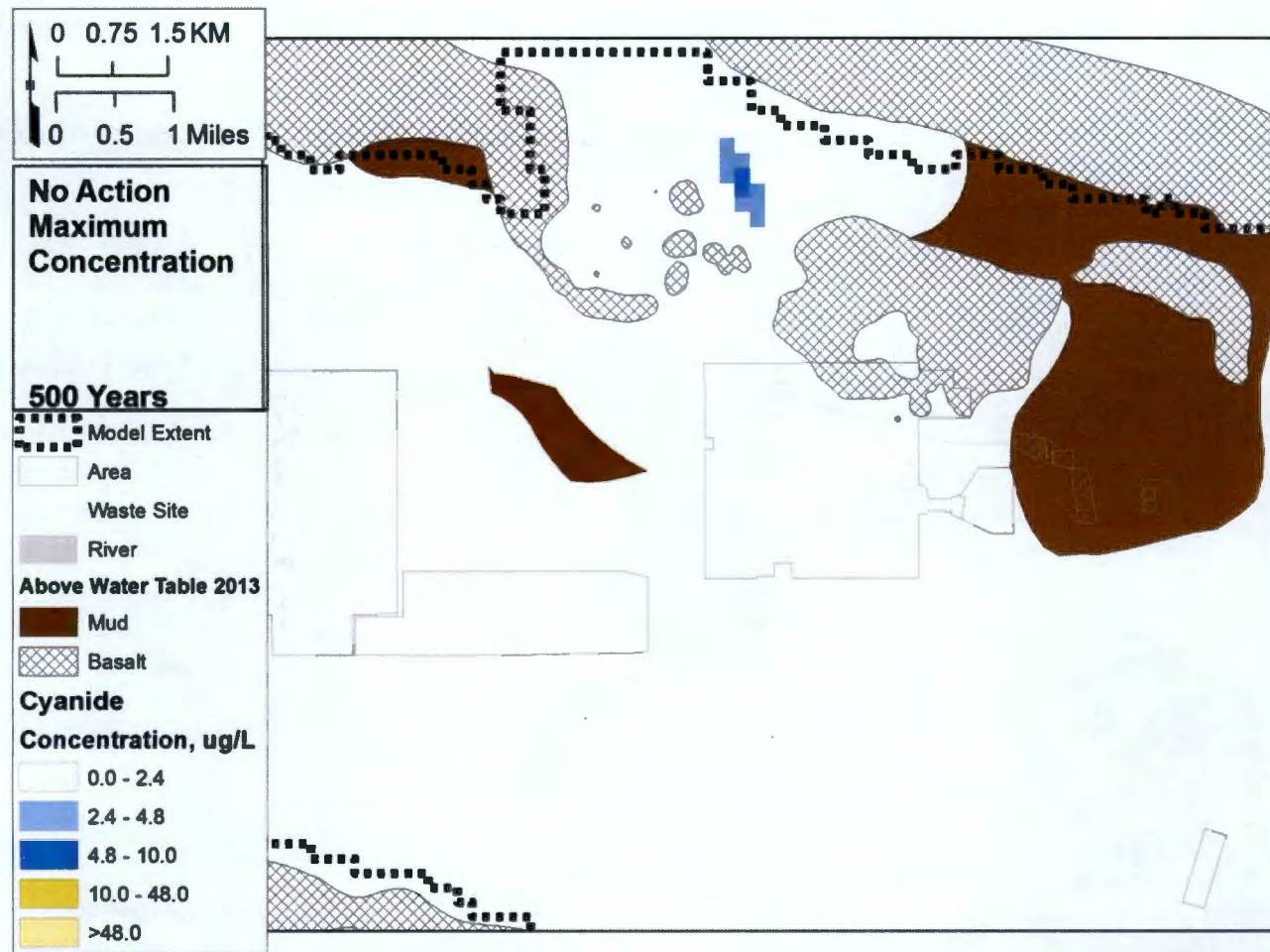


Figure B-91 - Plan view contours of the cyanide plume at simulation time 100 years based on the base case simulation using maximum concentration initial conditions



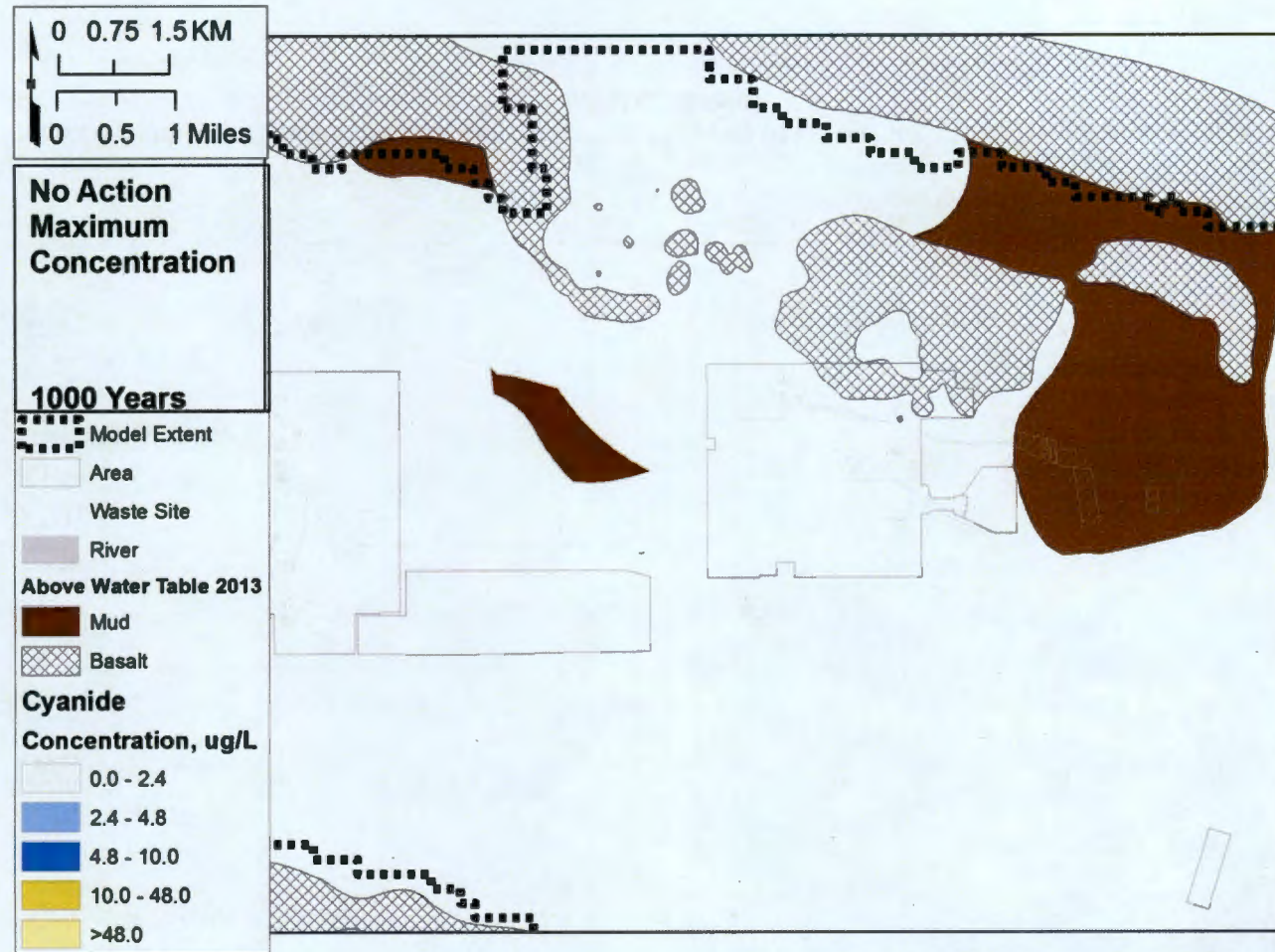
P2RGWM_cyan_200.png (DoubleFigure_P2RGWM.mxd)

Figure B-92 - Plan view contours of the cyanide plume at simulation time 200 years based on the base case simulation using maximum concentration initial conditions



P2RGWM_cyan_500.png (DoubleFigure_P2RGWM.mxd)

Figure B-93 - Plan view contours of the cyanide plume at simulation time 500 years based on the base case simulation using maximum concentration initial conditions



P2RGWM_cyan_1000.png (DoubleFigure_P2RGWM.mxd)

Figure B-94 - Plan view contours of the cyanide plume at simulation time 1000 years based on the base case simulation using maximum concentration initial conditions

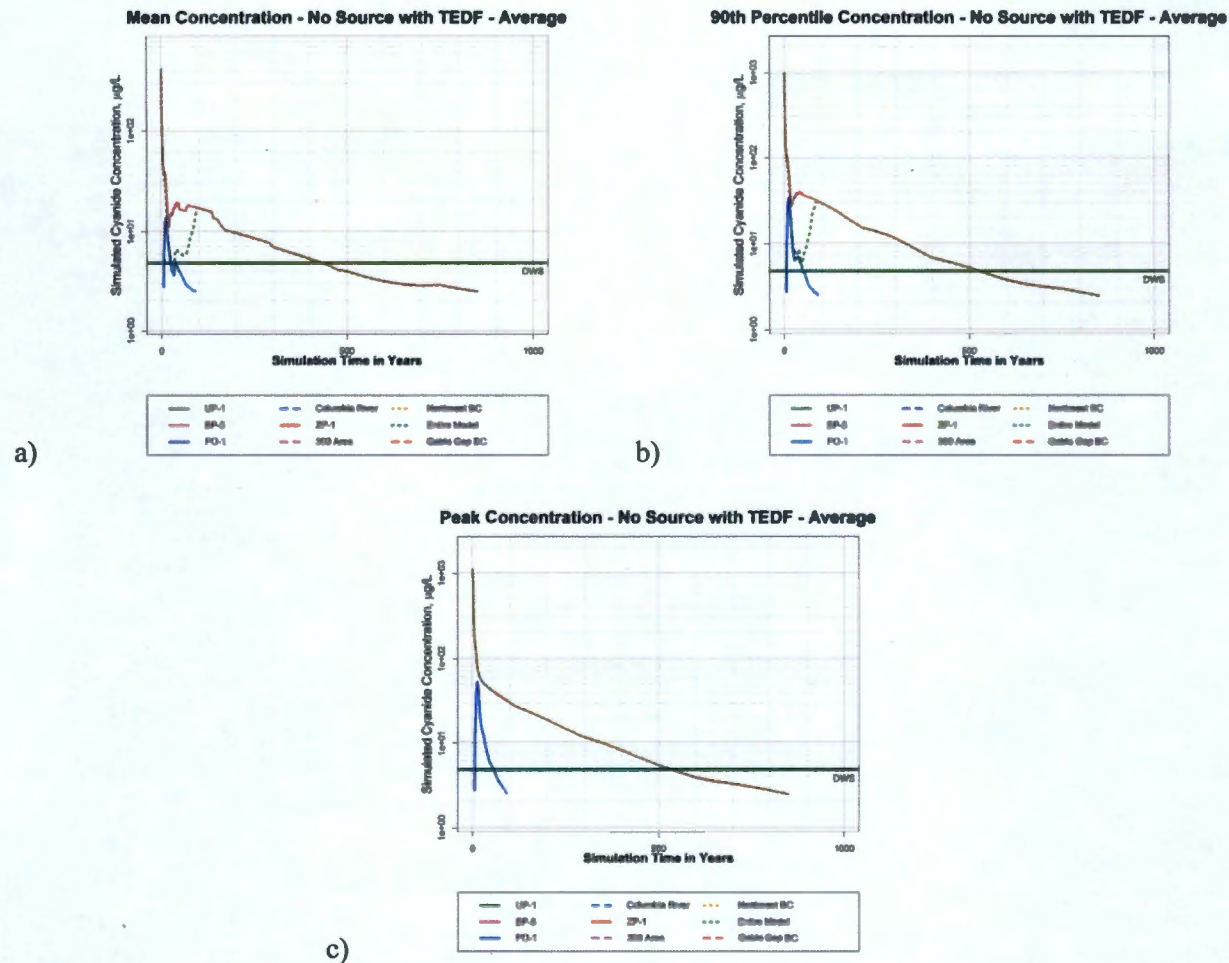


Figure B-95 - Statistical summary of simulated concentration within subregions of the model domain for the cyanide plume for the base case simulation using maximum concentration initial conditions.

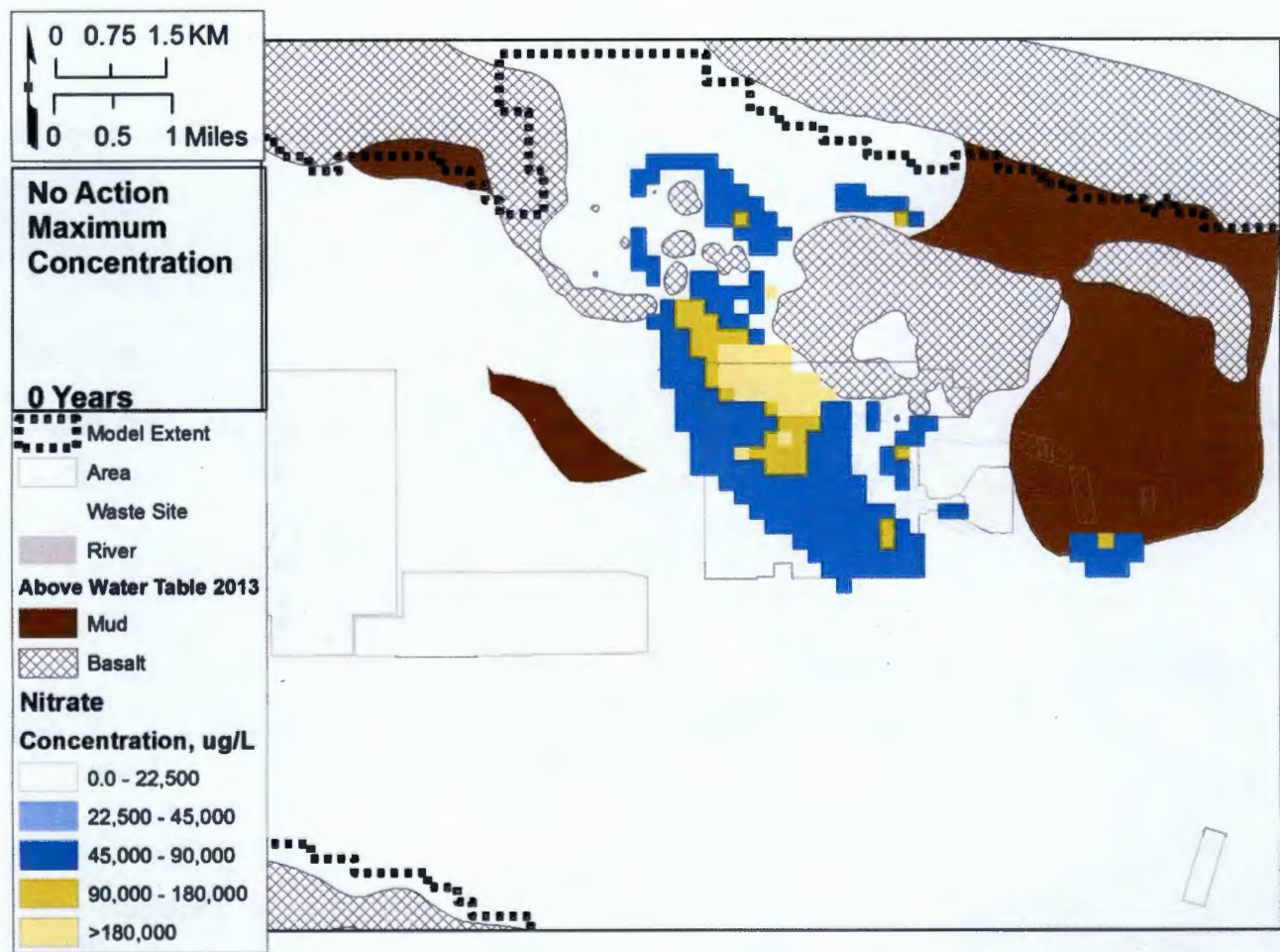
Table 10 - Summary of simulated concentrations (µg/L) at selected well locations within the model domain for the cyanide base case simulation using the maximum concentration condition.

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
699-42-42B	200-PO-1	0.0	3.4	2.5	2.2	1.9	1.6	1.3	1.0	0.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0
699-43-44	200-PO-1	0.0	2.4	2.3	2.3	2.0	1.7	1.4	1.2	0.9	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	0.1	4.3	3.4	2.7	2.1	1.6	1.3	1.0	0.8	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-1	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-14	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-22	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-23	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-25	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-16	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-23	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-19	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-20	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-3	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-36	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-37-47A	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-20	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-34	200-PO-1	0.0	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
299-E25-93	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-4	200-PO-1	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	0.1	4.3	3.4	2.7	2.1	1.6	1.3	1.0	0.8	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0
CMAX	200-PO-1	1.2	14.5	5.5	3.2	2.3	1.9	1.6	1.5	1.2	0.8	0.8	0.7	0.5	0.4	0.3	0.3	0.3
299-E24-25	200-BP-5	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-2	200-BP-5	3.9	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-23	200-BP-5	3.1	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-24	200-BP-5	3.0	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-30	200-BP-5	2.4	2.0	1.6	1.4	1.2	1.1	1.0	1.0	1.0	0.8	0.6	0.4	0.3	0.2	0.1	0.1	0.1
299-E29-54	200-BP-5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0
299-E33-16	200-BP-5	639.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-18	200-BP-5	480.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-1A	200-BP-5	435.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-2	200-BP-5	390.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-205	200-BP-5	388.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-26	200-BP-5	188.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-3	200-BP-5	376.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-31	200-BP-5	482.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-32	200-BP-5	219.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-337	200-BP-5	263.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-339	200-BP-5	237.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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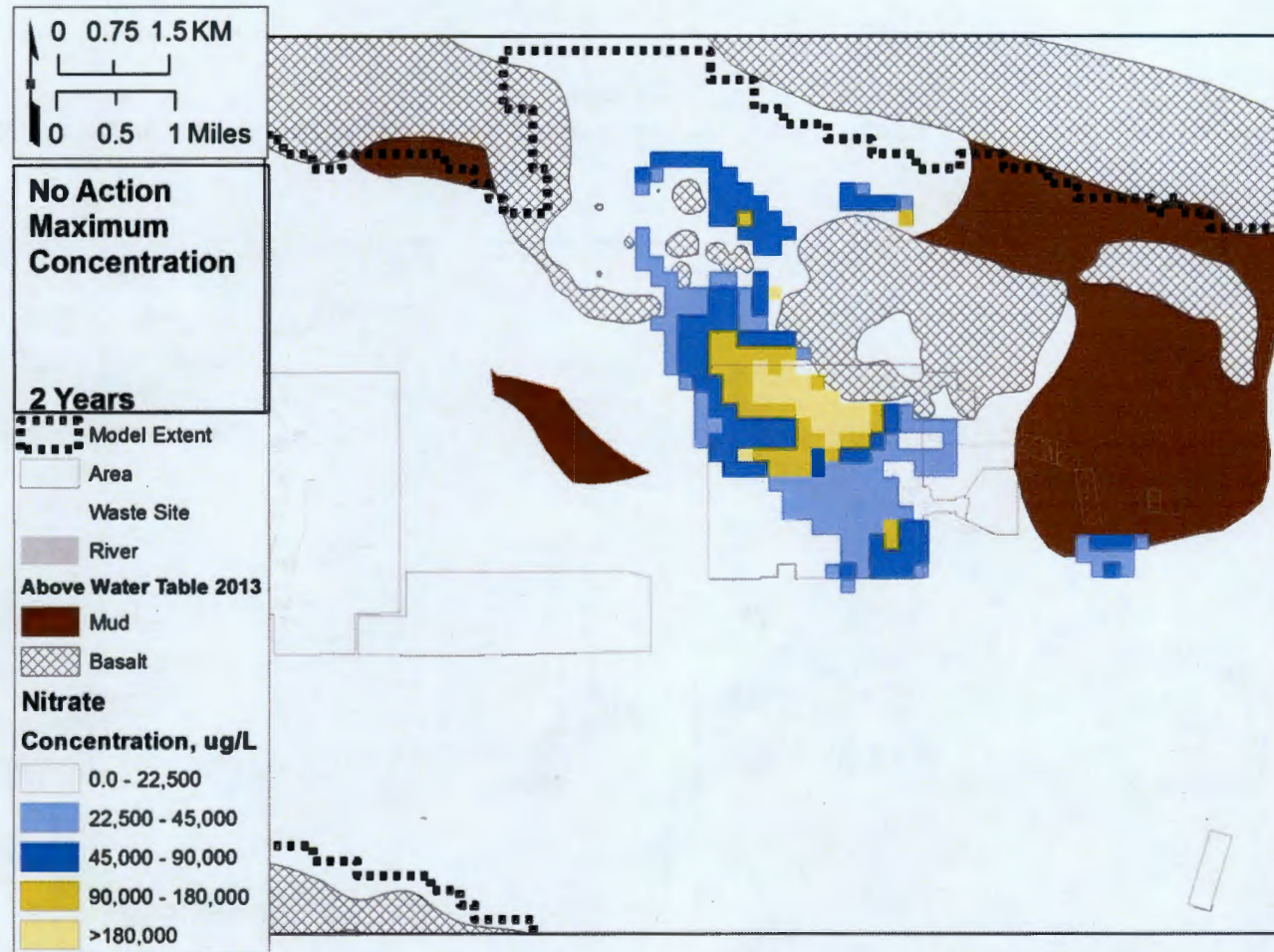
Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E33-341	200-BP-5	330.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-342	200-BP-5	469.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-343	200-BP-5	434.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-345	200-BP-5	486.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-38	200-BP-5	424.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-4	200-BP-5	328.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-41	200-BP-5	370.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-42	200-BP-5	351.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-43	200-BP-5	163.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-44	200-BP-5	558.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-47	200-BP-5	464.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-49	200-BP-5	194.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-5	200-BP-5	396.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-7	200-BP-5	283.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-9	200-BP-5	549.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-49-57A	200-BP-5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-50-56	200-BP-5	7.7	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-50-59	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-55C	200-BP-5	95.0	32.3	25.9	21.8	18.6	15.9	13.5	11.9	9.9	5.4	3.0	1.7	1.0	0.6	0.3	0.2	0.1
699-55-57	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-57-59	200-BP-5	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-60-60	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-61-62	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-47B	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-48A	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-54-49	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-27	200-BP-5	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-10	200-BP-5	11.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-6	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-7	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-9	200-BP-5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-29	200-BP-5	51.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-34	200-BP-5	51.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-35	200-BP-5	126.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-10	200-BP-5	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-12	200-BP-5	154.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-9	200-BP-5	387.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-13	200-BP-5	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E27-14	200-BP-5	1.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-155	200-BP-5	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-21	200-BP-5	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-22	200-BP-5	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-23	200-BP-5	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-24	200-BP-5	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-4	200-BP-5	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



P2RGWM_no3_0.png (DoubleFigure_P2RGWM.mxd)

Figure B-96 - Plan view contours of the nitrate plume at simulation time 0 years based on the base case simulation using maximum concentration initial conditions



P2RGWM_no3_2.png (DoubleFigure_P2RGWM.mxd)

Figure B-97 - Plan view contours of the nitrate plume at simulation time 2 years based on the base case simulation using maximum concentration initial conditions

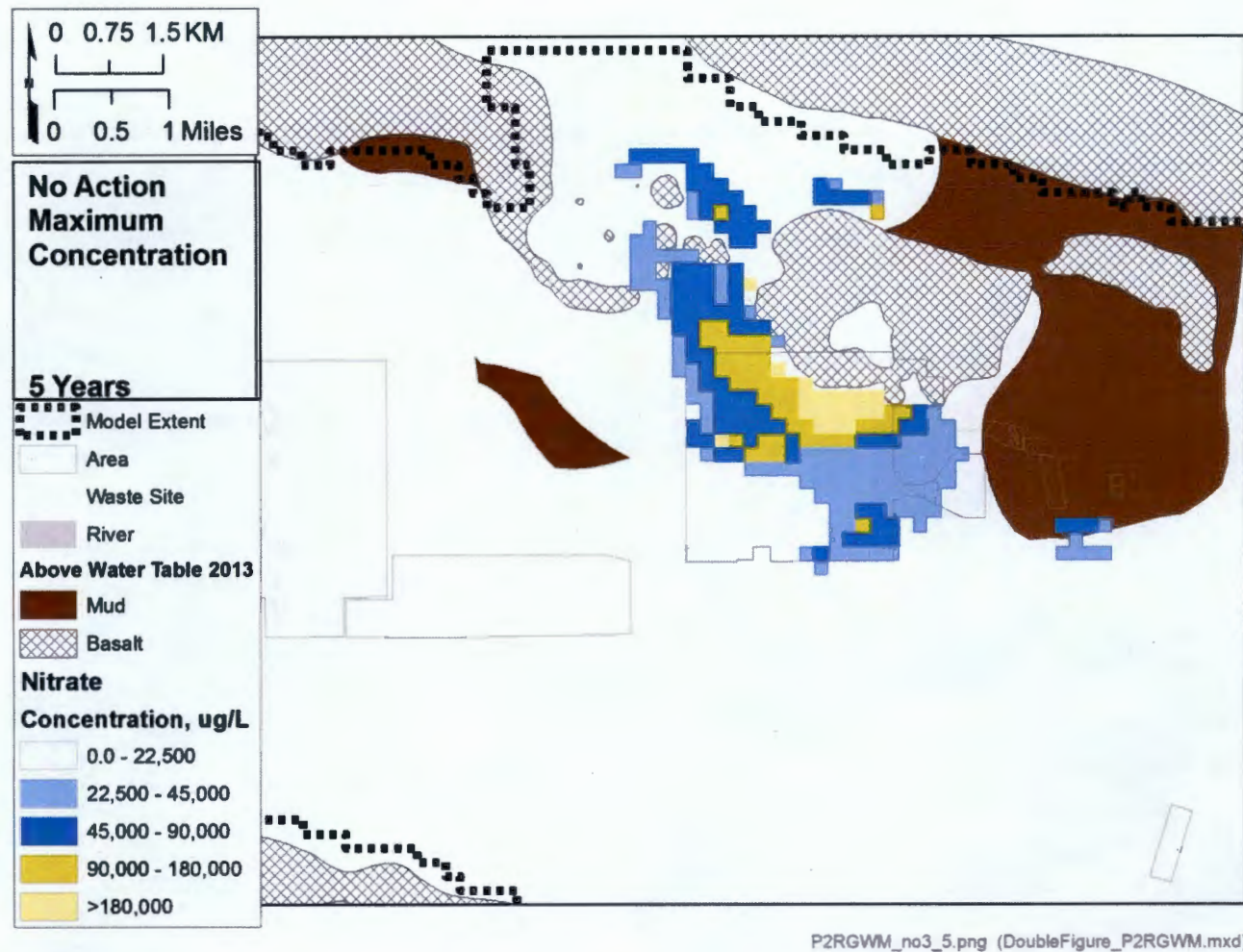


Figure B-98 - Plan view contours of the nitrate plume at simulation time 5 years based on the base case simulation using maximum concentration initial conditions

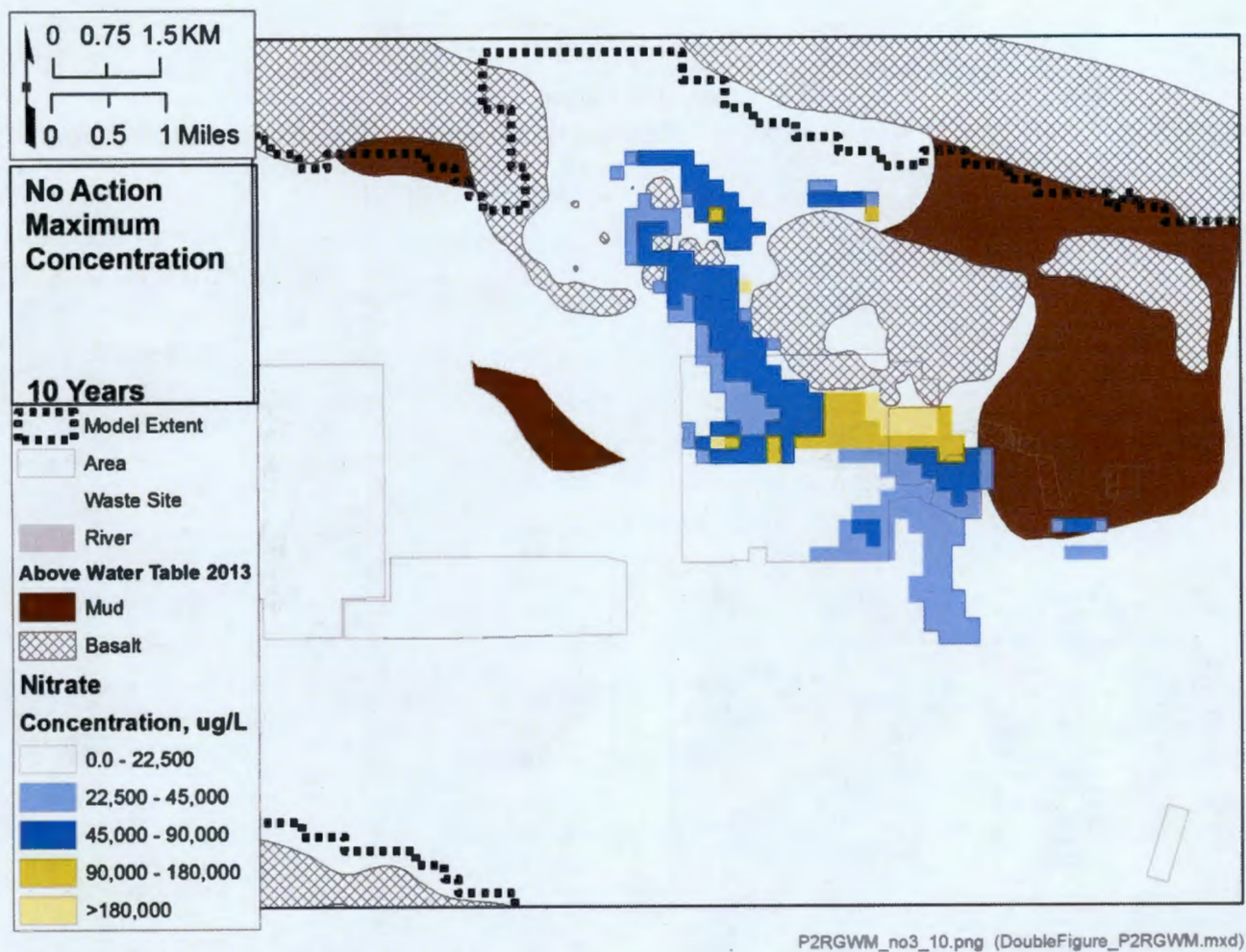
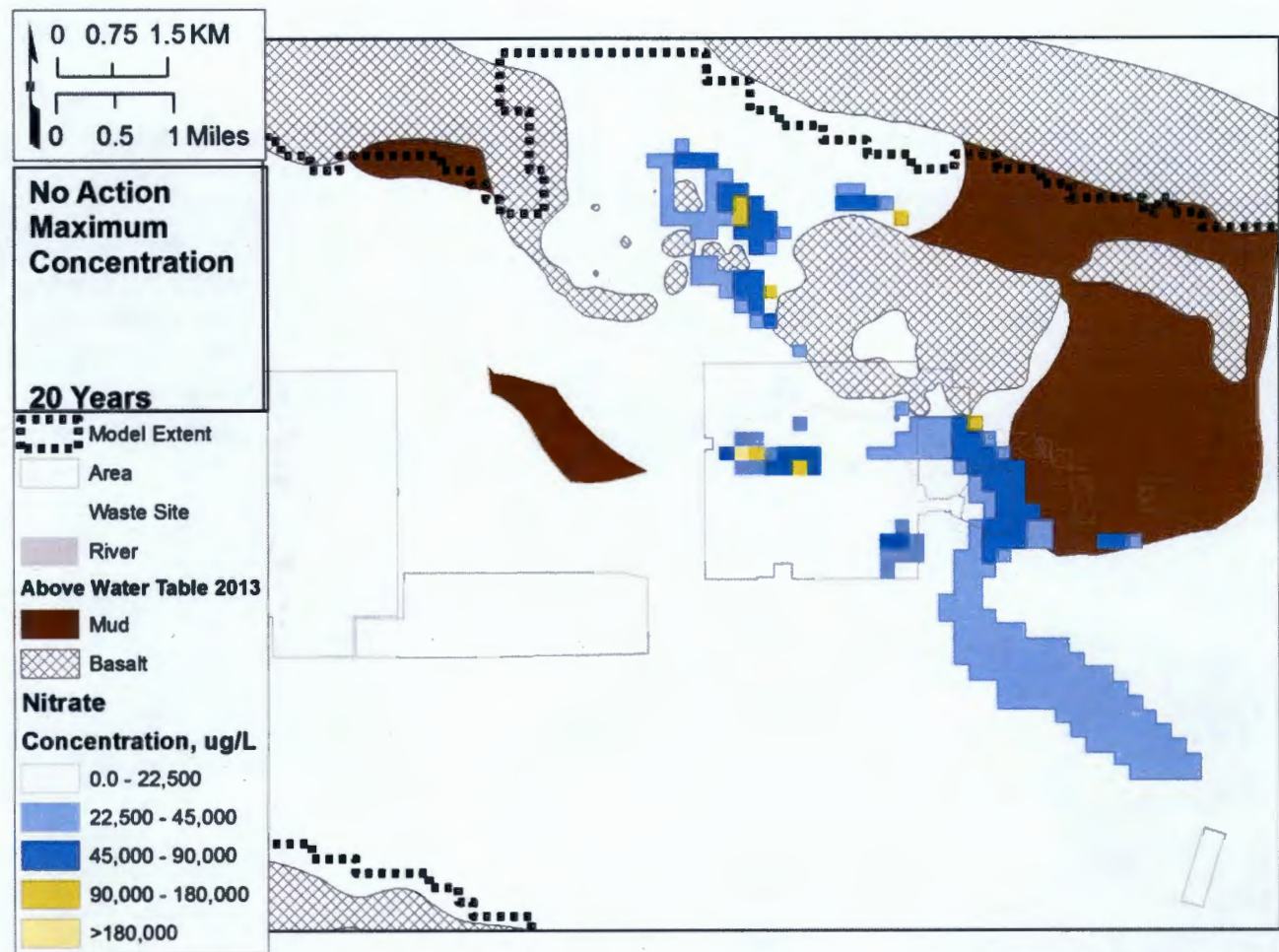


Figure B-99 - Plan view contours of the nitrate plume at simulation time 10 years based on the base case simulation using maximum concentration initial conditions



P2RGWM_no3_20.png (DoubleFigure_P2RGWM.mxd)

Figure B-100 - Plan view contours of the nitrate plume at simulation time 20 years based on the base case simulation using maximum concentration initial conditions

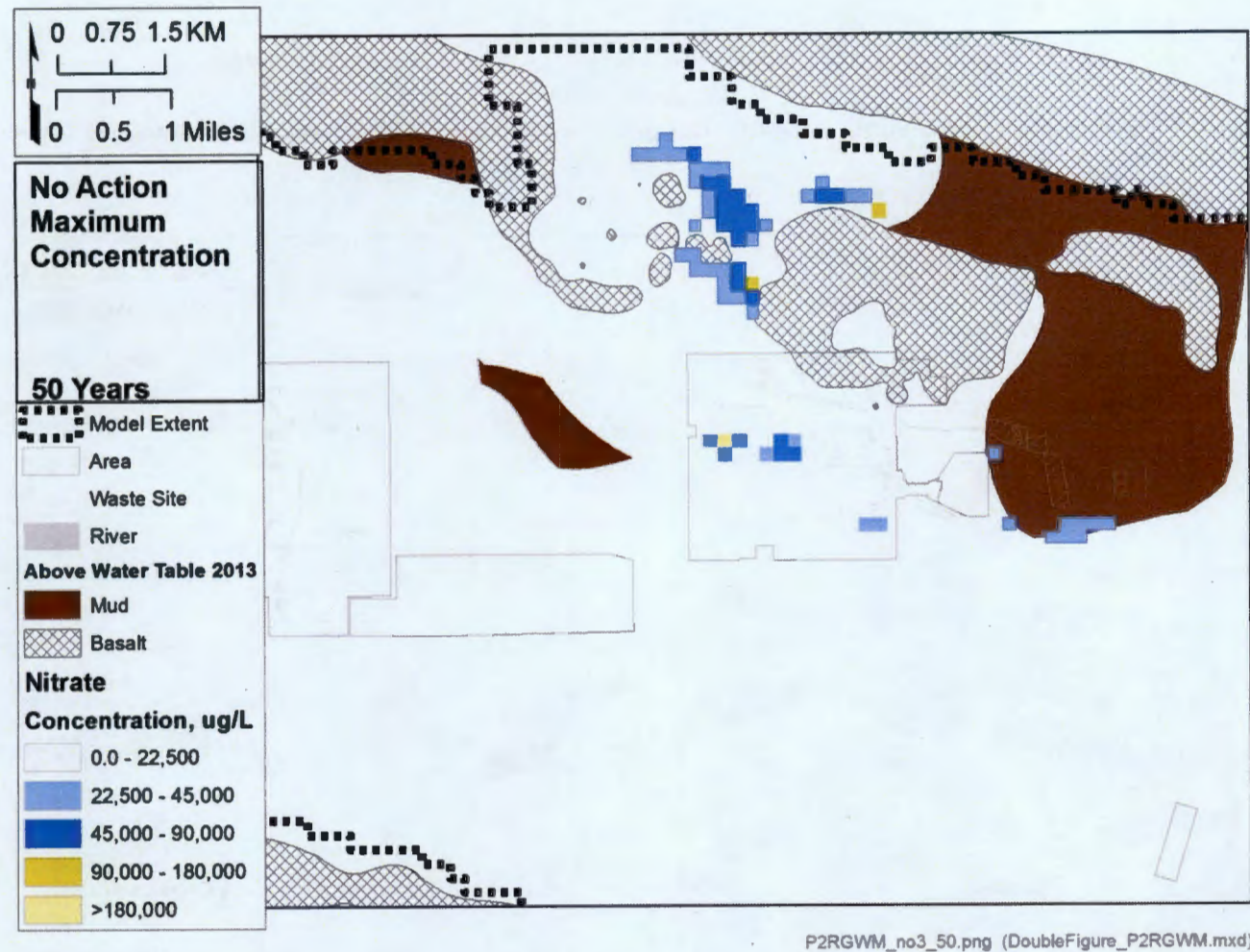
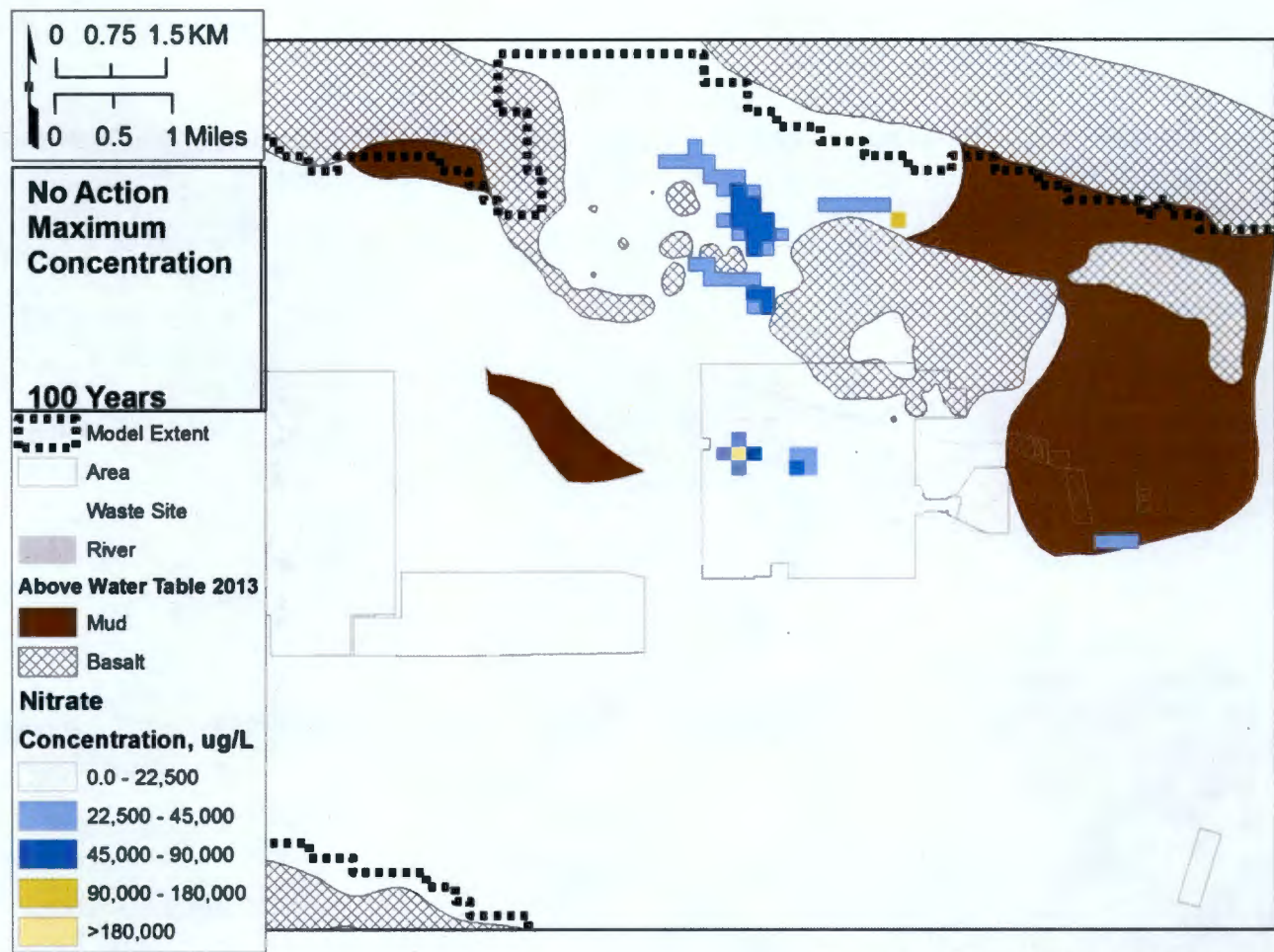


Figure B-101 - Plan view contours of the nitrate plume at simulation time 50 years based on the base case simulation using maximum concentration initial conditions



P2RGWM_no3_100.png (DoubleFigure_P2RGWM.mxd)

Figure B-102 - Plan view contours of the nitrate plume at simulation time 100 years based on the base case simulation using maximum concentration initial conditions

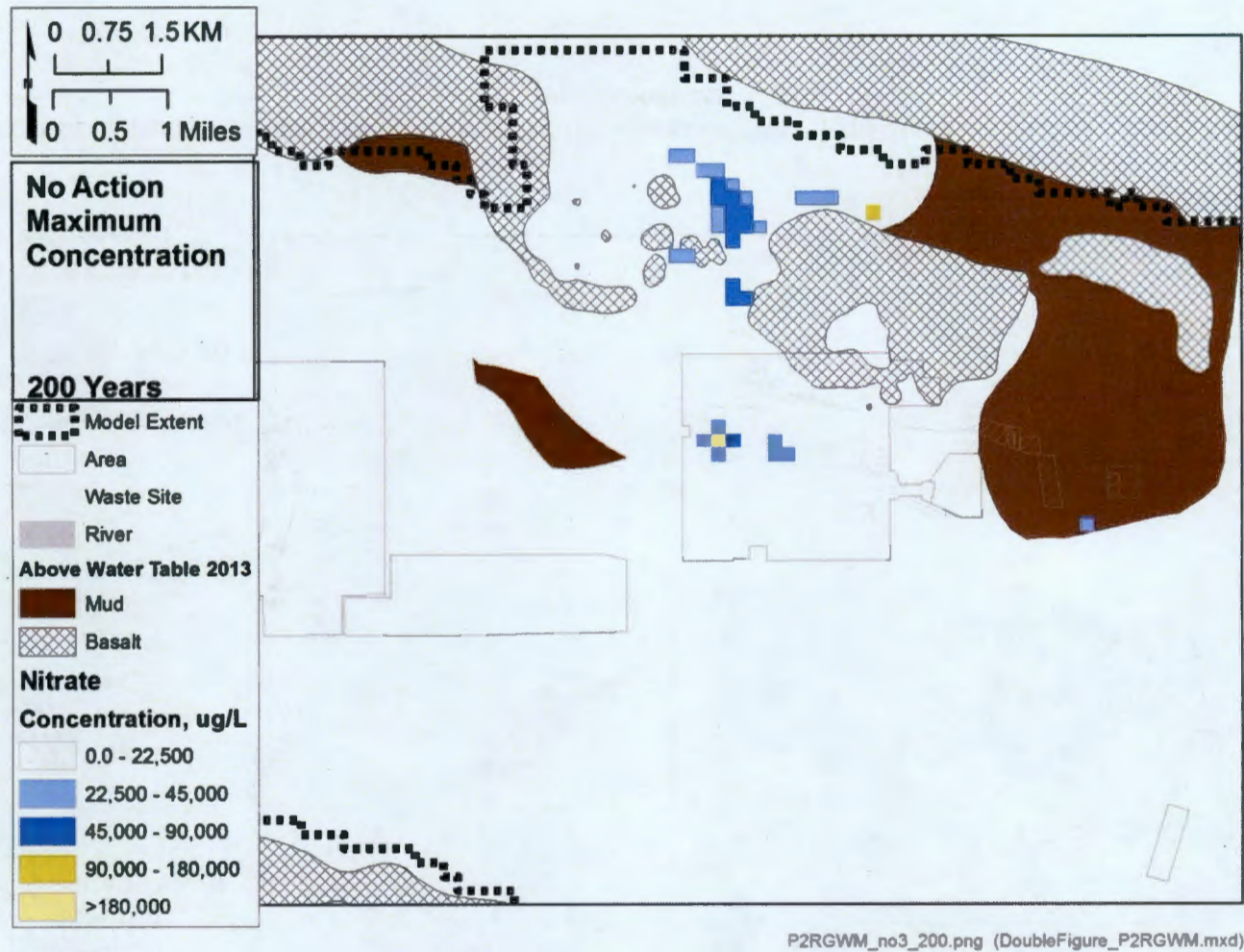


Figure B-103 - Plan view contours of the nitrate plume at simulation time 200 years based on the base case simulation using maximum concentration initial conditions

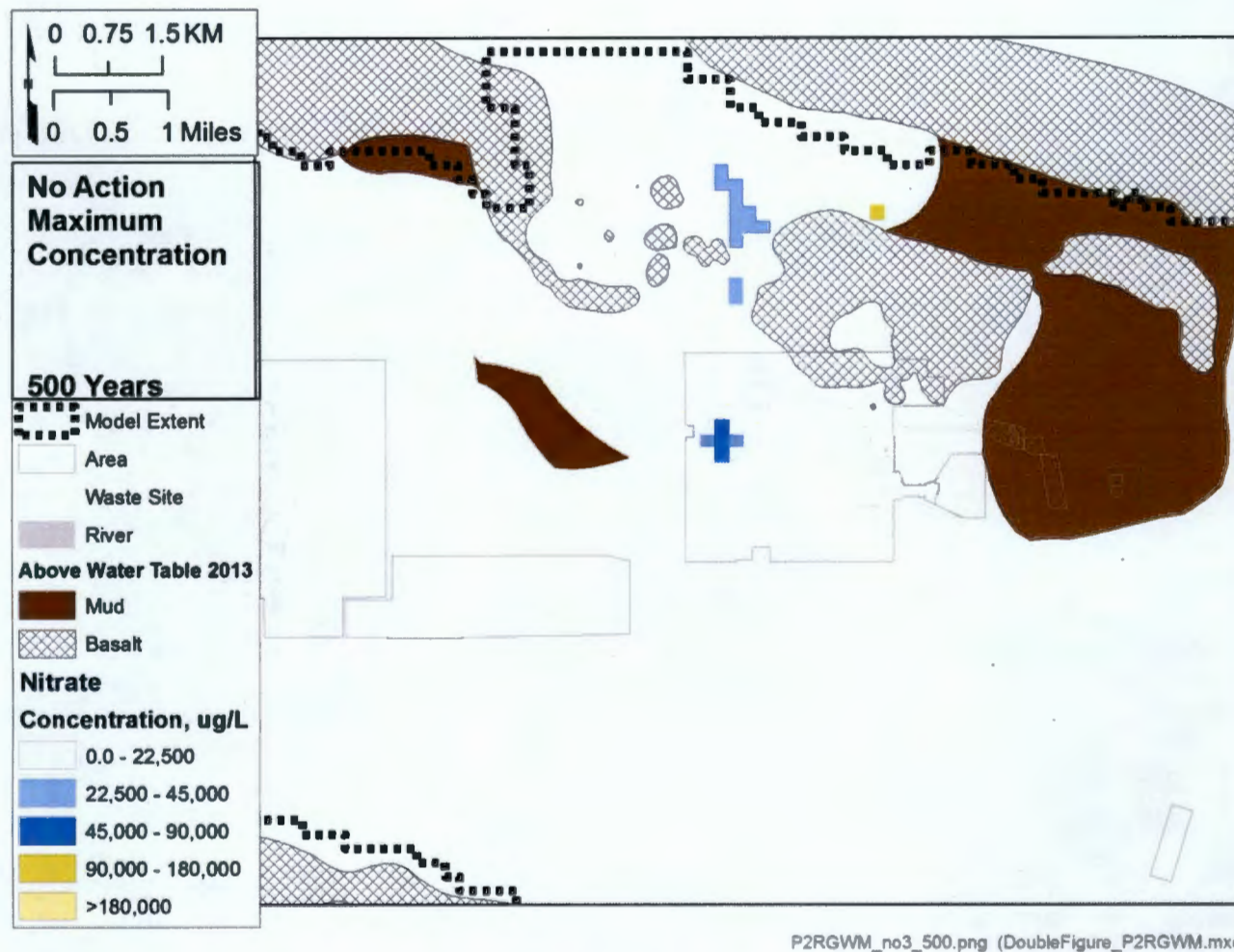
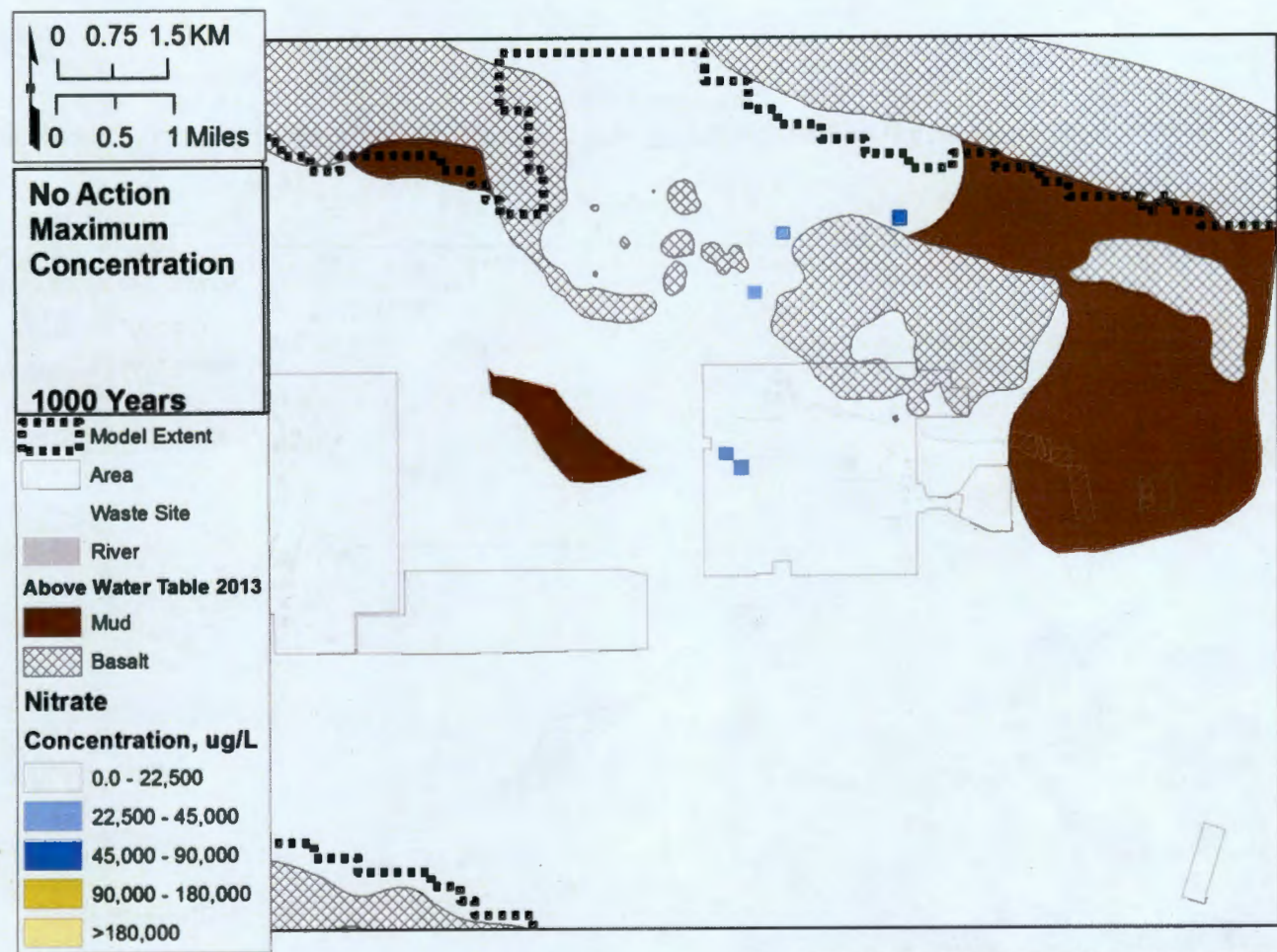


Figure B-104 - Plan view contours of the nitrate plume at simulation time 500 years based on the base case simulation using maximum concentration initial conditions



P2RGWM_no3_1000.png (DoubleFigure_P2RGWM.mxd)

Figure B-105 - Plan view contours of the nitrate plume at simulation time 1000 years based on the base case simulation using maximum concentration initial conditions

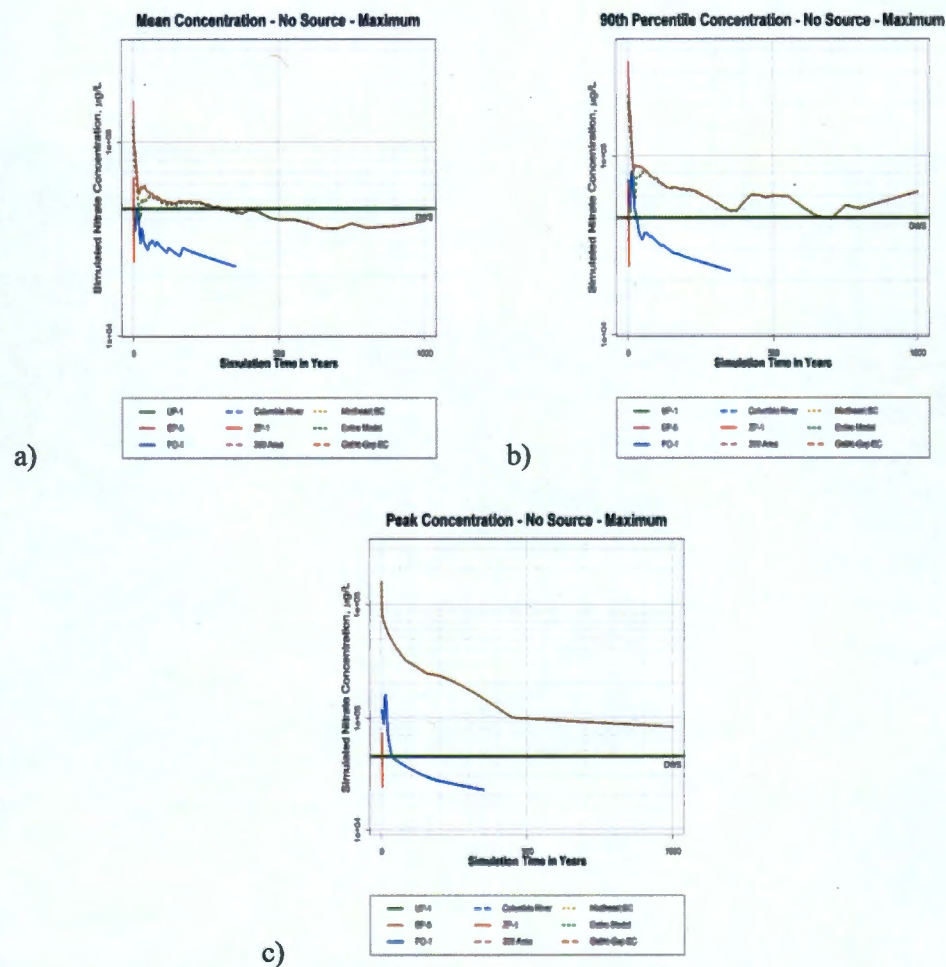


Figure B-106 - Statistical summary of simulated concentration within subregions of the model domain for the nitrate plume for the base case simulation using maximum concentration initial conditions.

Table 11 - Summary of simulated concentrations (µg/L) at selected well locations within the model domain for the nitrate base case simulation using the maximum concentration condition.

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
699-42-42B	200-PO-1	0.0	14824.1	10922.3	9610.2	8359.2	6979.6	5651.0	4689.3	3468.1	1164.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-44	200-PO-1	0.0	9582.6	9413.2	9334.9	8293.4	7091.0	5920.7	5062.4	3944.2	1614.8	667.8	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	1734.7	25125.6	14050.5	11080.7	8708.3	6829.7	5350.8	4402.6	3290.3	1280.3	541.7	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-1	200-PO-1	63343.7	15202.5	7372.8	4811.6	3499.1	2605.3	1967.4	1574.4	1138.2	608.4	472.4	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-14	200-PO-1	96715.9	42461.1	23964.9	16824.8	12384.2	9187.7	6860.9	5499.2	3981.5	1616.4	1153.4	819.4	576.4	0.0	0.0	0.0	0.0
299-E17-22	200-PO-1	50452.2	7624.9	2412.0	1155.8	702.3	469.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-23	200-PO-1	32891.1	6692.8	1130.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-25	200-PO-1	45635.0	12241.0	2098.4	715.5	606.1	510.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-16	200-PO-1	61767.0	9554.2	4135.9	2612.2	1922.6	1449.0	1094.1	876.6	653.7	598.4	501.6	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-23	200-PO-1	59999.6	12922.2	5761.0	5249.5	4714.8	4054.4	3387.0	2897.1	2273.4	1267.2	1125.9	938.0	753.8	591.7	456.9	0.0	0.0
299-E25-19	200-PO-1	6377.4	3386.7	615.8	0.0	0.0	0.0	0.0	0.0	505.8	657.9	633.4	536.8	0.0	0.0	0.0	0.0	0.0
299-E25-20	200-PO-1	5813.8	3573.8	601.3	0.0	0.0	0.0	0.0	0.0	0.0	579.8	565.5	477.6	0.0	0.0	0.0	0.0	0.0
299-E25-3	200-PO-1	13784.4	3690.6	1171.7	828.6	666.3	540.8	0.0	0.0	454.1	512.8	484.7	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-36	200-PO-1	42143.3	11546.0	5603.7	5457.5	4905.4	4204.4	3508.7	3006.8	2378.2	1219.6	1095.8	927.9	757.7	605.2	476.8	0.0	0.0
699-37-47A	200-PO-1	39122.1	14565.8	8839.4	5455.0	3363.7	2113.7	1375.3	1006.0	821.3	603.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-20	200-PO-1	14270.5	2115.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-34	200-PO-1	4812.7	8225.5	2345.6	2211.0	2060.7	1908.9	1761.2	1648.0	1488.4	1048.5	735.9	519.3	0.0	0.0	0.0	0.0	0.0
299-E25-93	200-PO-1	12722.7	2278.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-4	200-PO-1	22616.2	9113.4	670.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	1734.7	25125.6	14050.5	11080.7	8708.3	6829.7	5350.8	4402.6	3290.3	1280.3	541.7	0.0	0.0	0.0	0.0	0.0	0.0
CMAX	200-PO-1	110656.1	59976.2	41804.7	37954.3	34698.7	31972.8	29802.2	28475.5	27172.2	24114.0	21738.5	20247.2	19327.4	18357.4	17387.3	16441.9	15533.2
299-E24-25	200-BP-5	40326.6	3864.2	2038.6	1829.4	1639.3	1475.6	1337.9	1245.2	1131.9	910.8	812.7	748.7	684.3	612.6	536.1	460.0	0.0
299-E28-2	200-BP-5	99343.2	10784.1	6916.2	4538.7	2995.4	2031.4	1430.7	1116.6	816.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-23	200-BP-5	132467.1	10589.9	6101.4	4621.1	4563.9	4512.9	4430.6	4335.9	4141.5	3243.2	2382.4	1758.2	1345.5	1075.0	890.2	754.6	647.6
299-E28-24	200-BP-5	132636.4	10673.8	6169.7	4684.8	4670.3	4646.1	4579.4	4491.2	4298.6	3370.4	2468.0	1811.5	1377.3	1093.7	900.9	760.7	651.1
299-E28-30	200-BP-5	521433.6	345301.3	266290.1	218732.0	198743.4	183231.9	167601.8	162969.7	158106.8	124856.1	90191.4	63458.1	44493.9	31389.8	22379.1	16154.5	11814.1
299-E29-54	200-BP-5	111309.7	31751.6	15098.2	11209.3	11598.3	12167.1	12569.9	12816.2	13067.6	15024.6	15405.5	14777.5	13688.6	12447.3	11218.0	10079.9	9063.4
299-E33-16	200-BP-5	888804.4	5836.7	3691.4	2300.7	1534.5	1234.2	1055.1	961.0	872.4	683.7	505.1	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-18	200-BP-5	749870.9	3863.5	2284.6	1400.8	922.7	733.7	621.3	562.3	506.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-1A	200-BP-5	578460.3	6693.2	4495.8	2850.3	1914.4	1546.4	1325.8	1209.5	1099.6	860.9	635.1	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-2	200-BP-5	521938.6	6798.5	4598.5	2922.1	1963.6	1586.1	1359.6	1240.1	1126.9	881.0	649.4	453.5	0.0	0.0	0.0	0.0	0.0
299-E33-205	200-BP-5	602622.4	3718.2	2276.1	1414.4	940.6	754.3	643.5	585.4	530.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-26	200-BP-5	329326.0	1023.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-3	200-BP-5	498096.8	6984.8	4749.0	3018.5	2027.9	1637.2	1402.6	1278.6	1161.0	906.1	667.5	465.9	0.0	0.0	0.0	0.0	0.0
299-E33-31	200-BP-5	663287.4	5113.7	3263.0	2059.0	1385.1	1123.7	968.9	888.3	813.3	647.4	480.9	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-32	200-BP-5	417161.9	1929.9	1059.2	650.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-337	200-BP-5	565686.5	1515.1	629.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-339	200-BP-5	507585.3	1340.4	525.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E33-341	200-BP-5	455999.9	6724.8	4570.7	2915.2	1961.7	1585.7	1360.1	1241.0	1128.1	881.9	650.0	453.8	0.0	0.0	0.0	0.0	0.0
299-E33-342	200-BP-5	626062.0	6471.9	4308.8	2727.5	1831.8	1480.4	1270.1	1159.5	1055.1	828.2	611.6	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-343	200-BP-5	689699.9	3626.2	2145.4	1316.0	866.6	688.7	583.0	527.4	474.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-345	200-BP-5	755799.1	3923.7	2326.3	1427.3	940.7	748.4	634.0	573.9	517.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-38	200-BP-5	573862.8	6406.0	4279.5	2715.8	1825.7	1476.2	1267.1	1157.0	1053.2	826.7	610.5	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-4	200-BP-5	439749.2	7108.9	4867.3	3100.8	2084.4	1682.8	1441.3	1313.7	1192.3	929.2	684.0	477.3	0.0	0.0	0.0	0.0	0.0
299-E33-41	200-BP-5	613687.1	3155.5	1838.6	1123.7	737.5	584.2	493.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-42	200-BP-5	539964.4	3537.8	2172.6	1362.3	913.5	738.4	634.8	580.8	530.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-43	200-BP-5	364421.8	1261.3	597.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-44	200-BP-5	766831.4	5735.7	3705.3	2321.5	1552.0	1250.4	1070.3	975.6	886.5	695.3	513.6	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-47	200-BP-5	806491.0	2375.9	1131.9	651.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-49	200-BP-5	441607.1	1109.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-5	200-BP-5	539887.4	6418.4	4302.7	2735.1	1839.5	1487.7	1277.1	1166.2	1061.5	832.8	614.8	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-7	200-BP-5	392968.7	7061.2	4852.5	3100.4	2086.3	1685.4	1444.2	1316.7	1195.4	931.5	685.5	478.4	0.0	0.0	0.0	0.0	0.0
299-E33-9	200-BP-5	743806.0	5801.9	3761.4	2364.7	1585.1	1280.5	1099.0	1003.8	914.5	720.7	533.3	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-49-57A	200-BP-5	87469.5	1692.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-50-56	200-BP-5	41908.9	32280.3	27836.0	23239.6	19722.6	16966.5	14773.5	13321.1	11540.2	7701.6	5465.7	3970.9	2900.5	2114.2	1533.7	1106.8	794.6
699-50-59	200-BP-5	21373.3	2402.9	3807.6	2798.1	1680.4	907.3	460.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-55C	200-BP-5	123094.7	82019.5	73449.3	67318.4	61744.7	56533.1	51696.9	48100.4	43148.4	30047.9	21064.9	14933.5	10707.8	7759.4	5677.2	4190.2	3117.2
699-55-57	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-57-59	200-BP-5	0.0	13845.2	15176.8	14198.8	12441.5	11835.8	11046.4	10164.7	8675.9	4347.0	1940.9	824.7	0.0	0.0	0.0	0.0	0.0
699-60-60	200-BP-5	0.0	0.0	1017.6	2101.6	3280.1	4357.3	5186.6	5625.3	5910.0	4826.4	2915.1	1536.5	753.1	0.0	0.0	0.0	0.0
699-61-62	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	494.2	736.9	1392.7	1470.4	1305.4	986.9	652.7	0.0	0.0	0.0
699-53-47B	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-48A	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-54-49	200-BP-5	53025.4	43586.1	36476.9	30985.8	26305.5	22260.8	18790.6	16385.1	13319.9	6663.7	3427.4	1937.1	1382.1	1111.5	972.8	895.5	847.0
299-E26-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-27	200-BP-5	103955.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-10	200-BP-5	188209.6	724.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-6	200-BP-5	77103.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-7	200-BP-5	92269.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-9	200-BP-5	147317.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-29	200-BP-5	206446.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-34	200-BP-5	233618.3	1660.4	918.9	560.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-35	200-BP-5	292230.8	853.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-10	200-BP-5	27444.4	5086.6	620.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-12	200-BP-5	401849.3	2014.4	594.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-9	200-BP-5	556824.8	702.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-13	200-BP-5	25936.3	11404.6	1055.3	690.2	545.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E27-14	200-BP-5	42812.2	12061.6	1018.7	656.0	515.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-155	200-BP-5	19166.7	8586.3	879.4	562.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-21	200-BP-5	28404.9	8526.3	807.7	500.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-22	200-BP-5	12821.6	7178.8	727.7	456.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-23	200-BP-5	24732.4	10033.3	949.5	610.6	482.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-24	200-BP-5	36916.8	9651.8	861.3	538.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-4	200-BP-5	23300.6	11361.1	1078.1	709.7	561.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

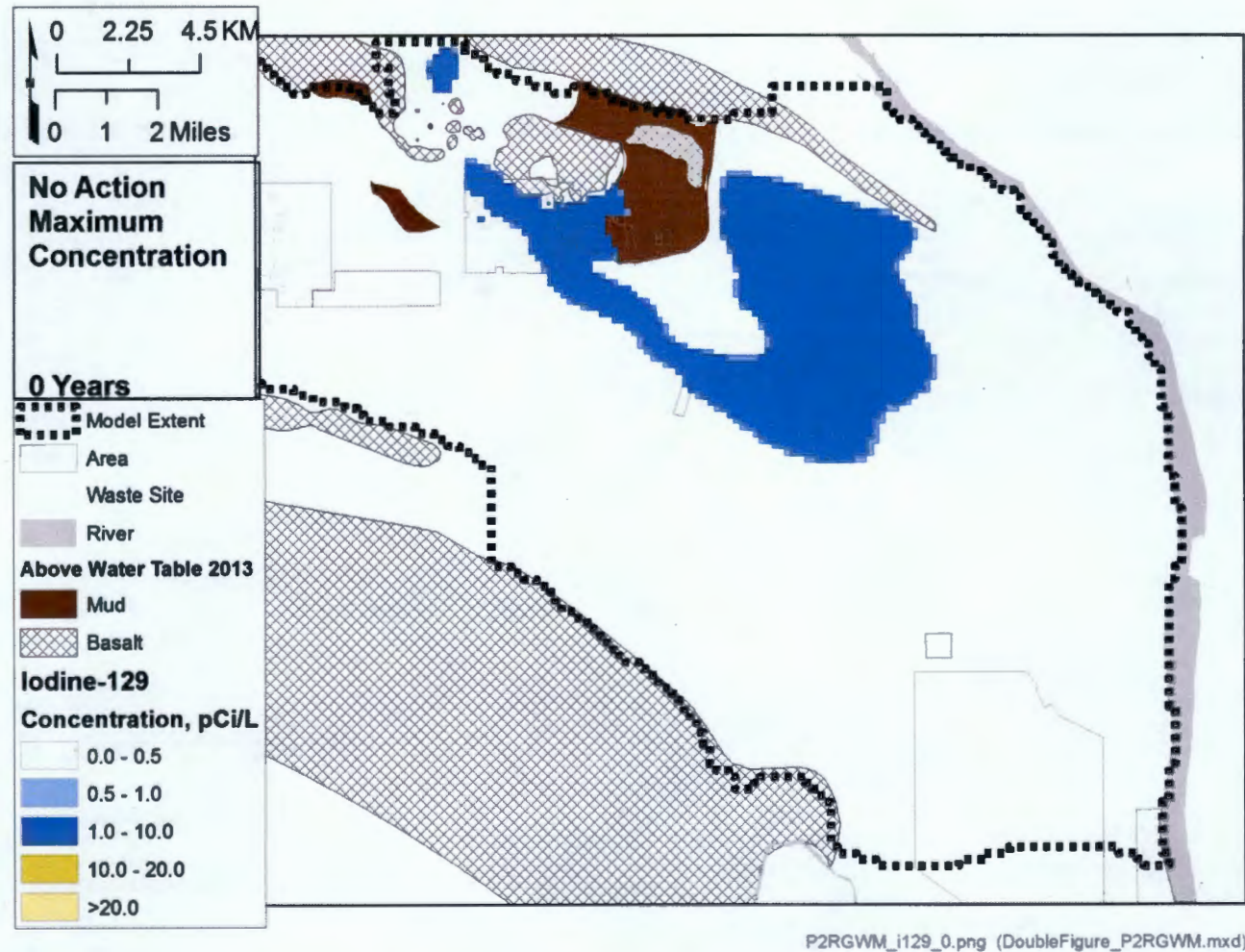


Figure B-107 - Plan view contours of the iodine-129 plume at simulation time 0 years based on the base case simulation using maximum concentration initial conditions

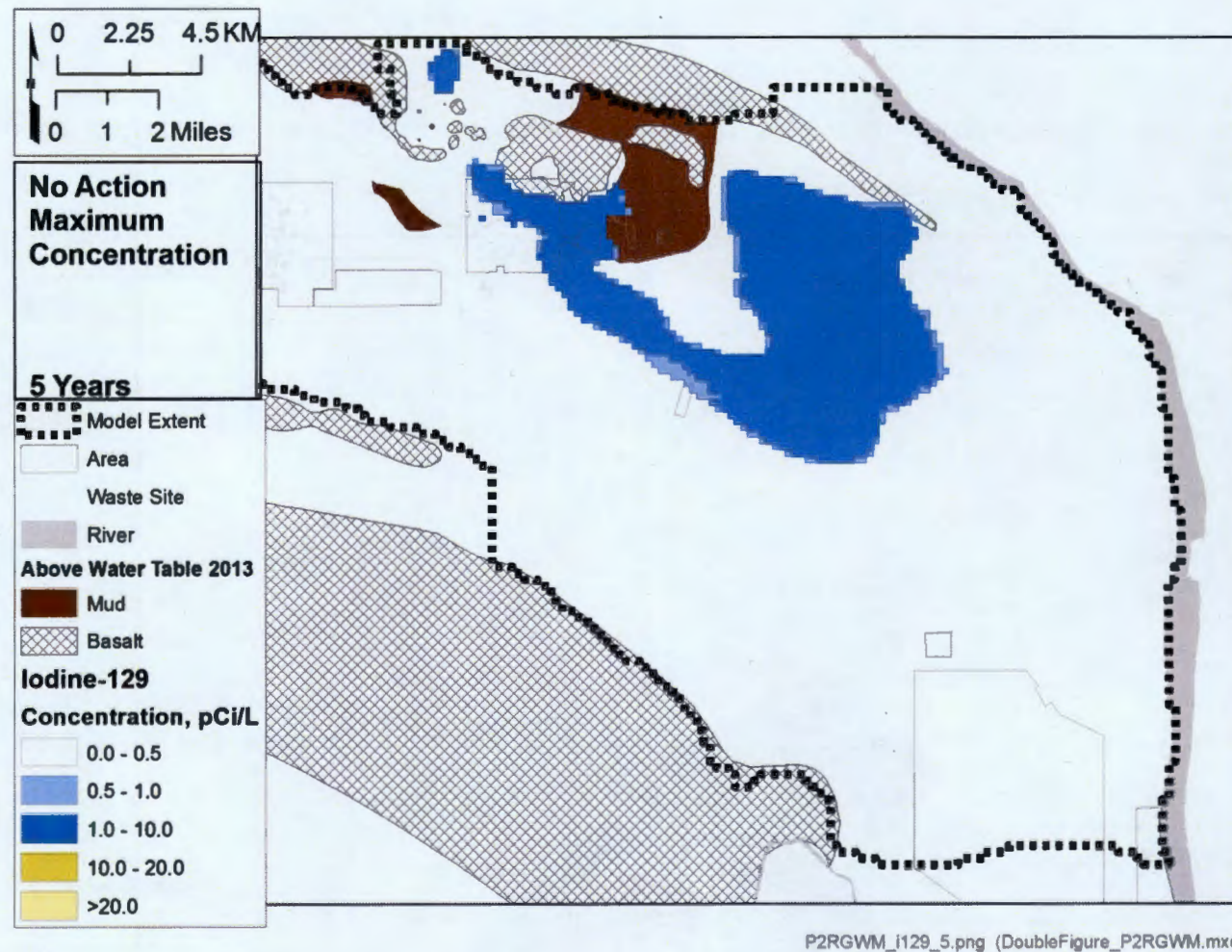


Figure B-108 - Plan view contours of the iodine-129 plume at simulation time 5 years based on the base case simulation using maximum concentration initial conditions

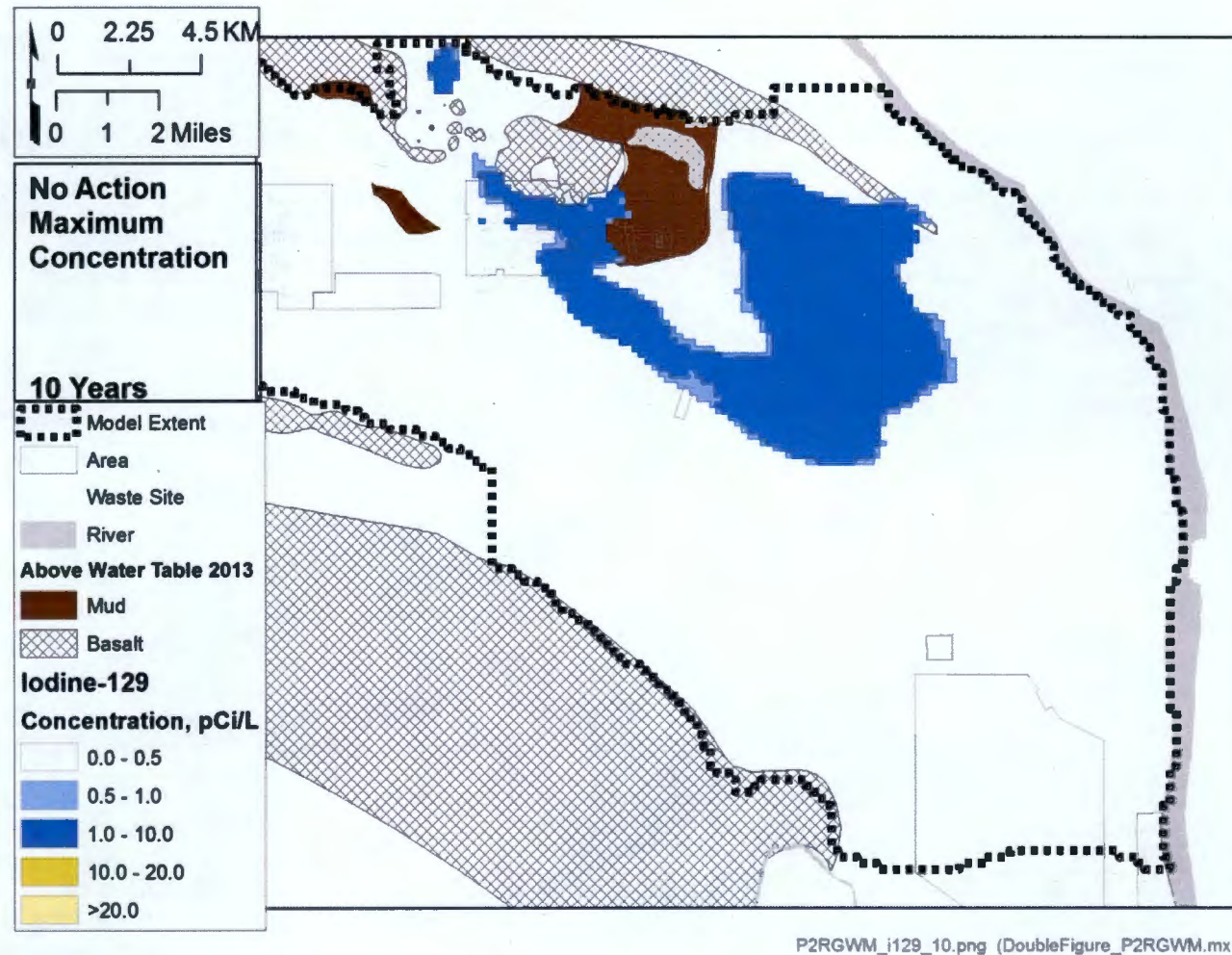


Figure B-109 - Plan view contours of the iodine-129 plume at simulation time 10 years based on the base case simulation using maximum concentration initial conditions

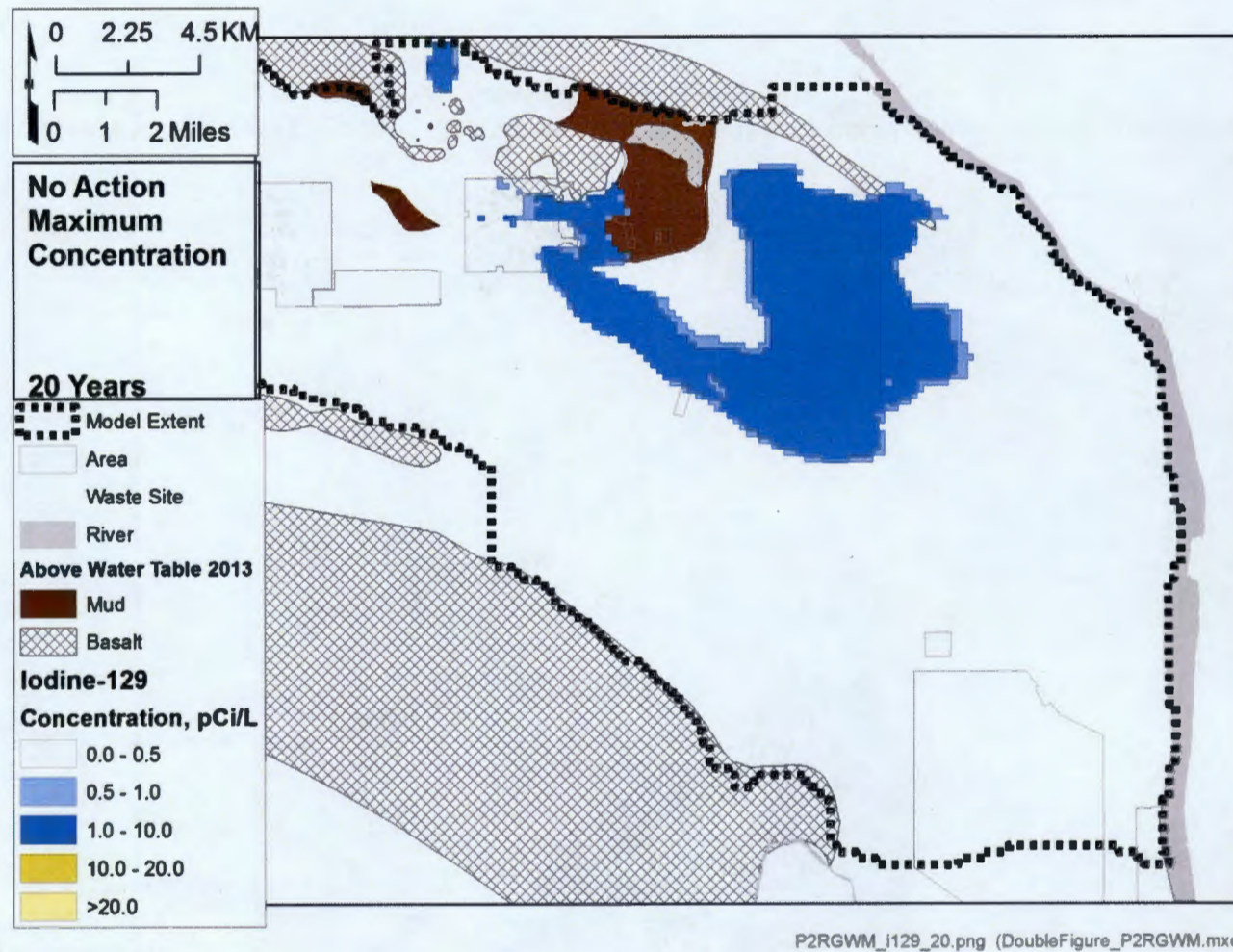
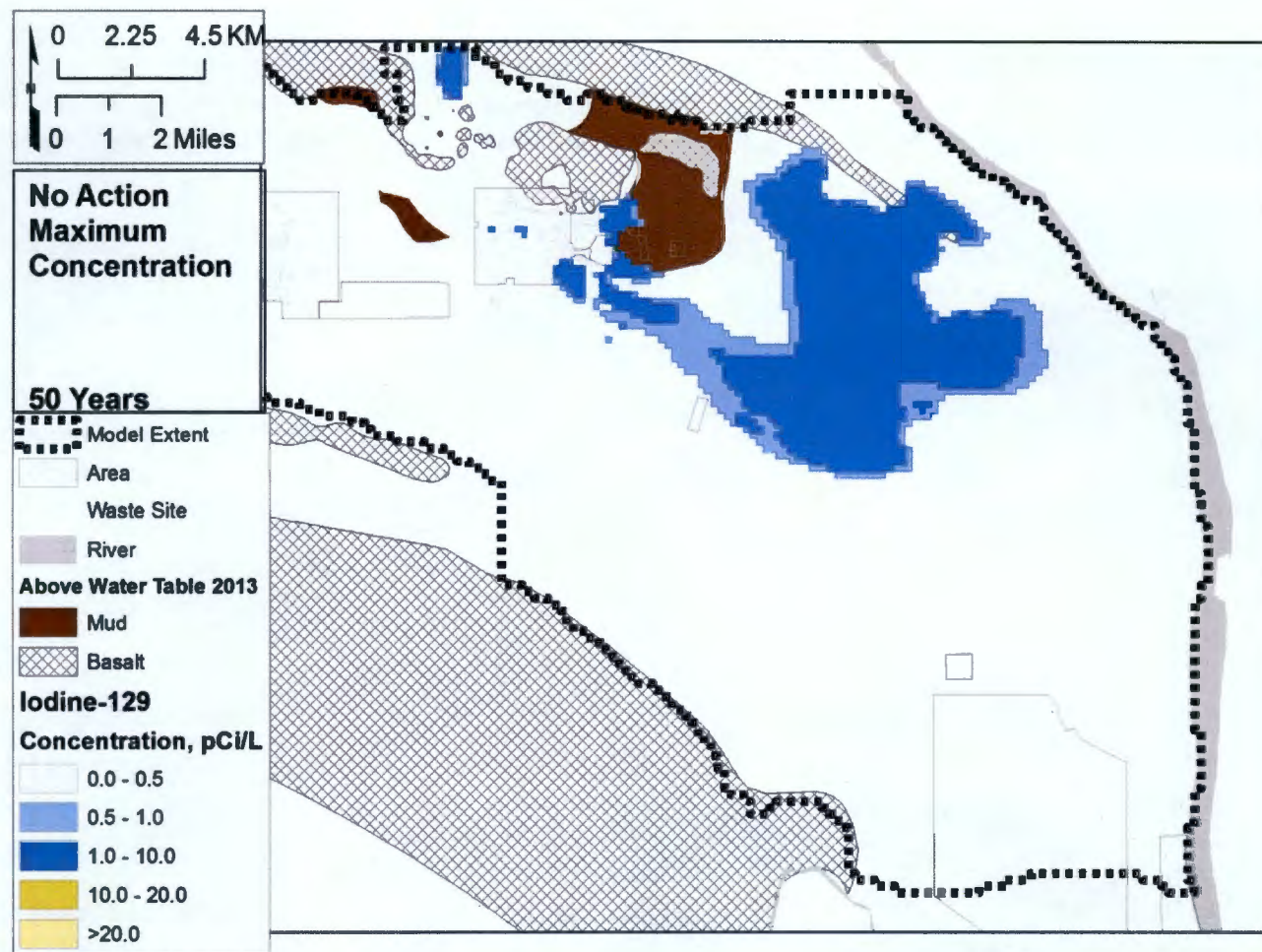
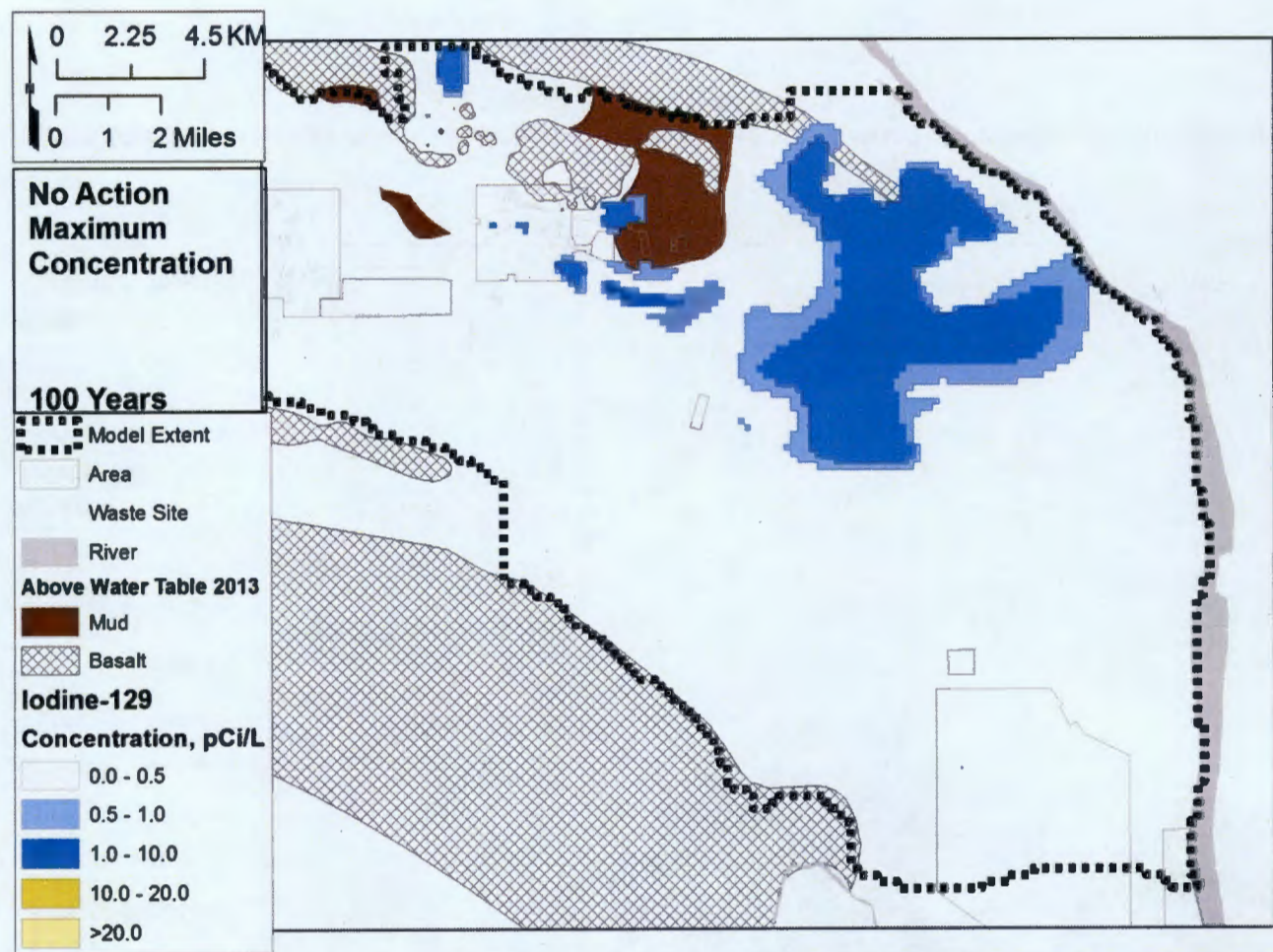


Figure B-110 - Plan view contours of the iodine-129 plume at simulation time 20 years based on the base case simulation using maximum concentration initial conditions



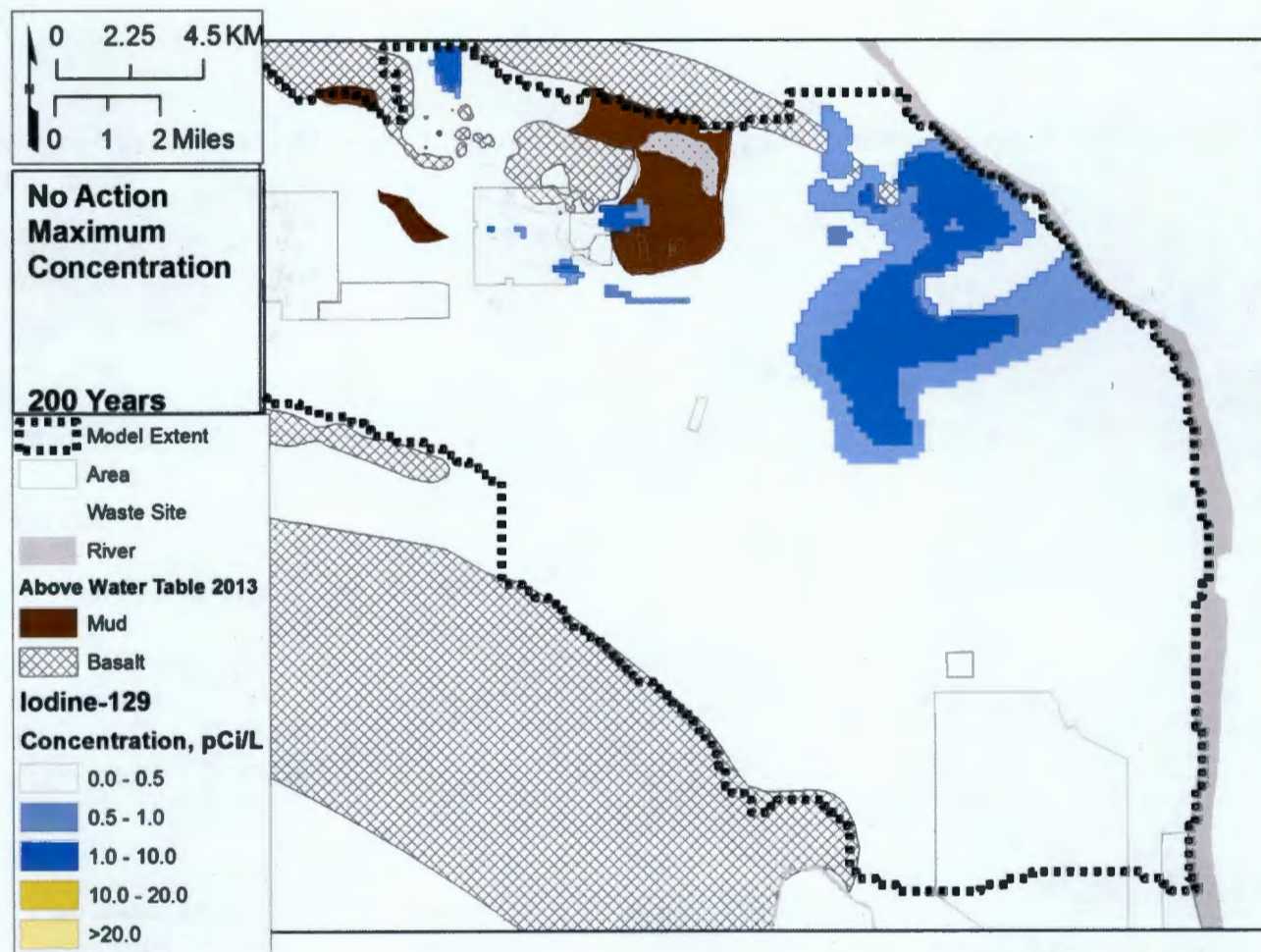
P2RGWM_i129_50.png (DoubleFigure_P2RGWM.mxd)

Figure B-111 - Plan view contours of the iodine-129 plume at simulation time 50 years based on the base case simulation using maximum concentration initial conditions



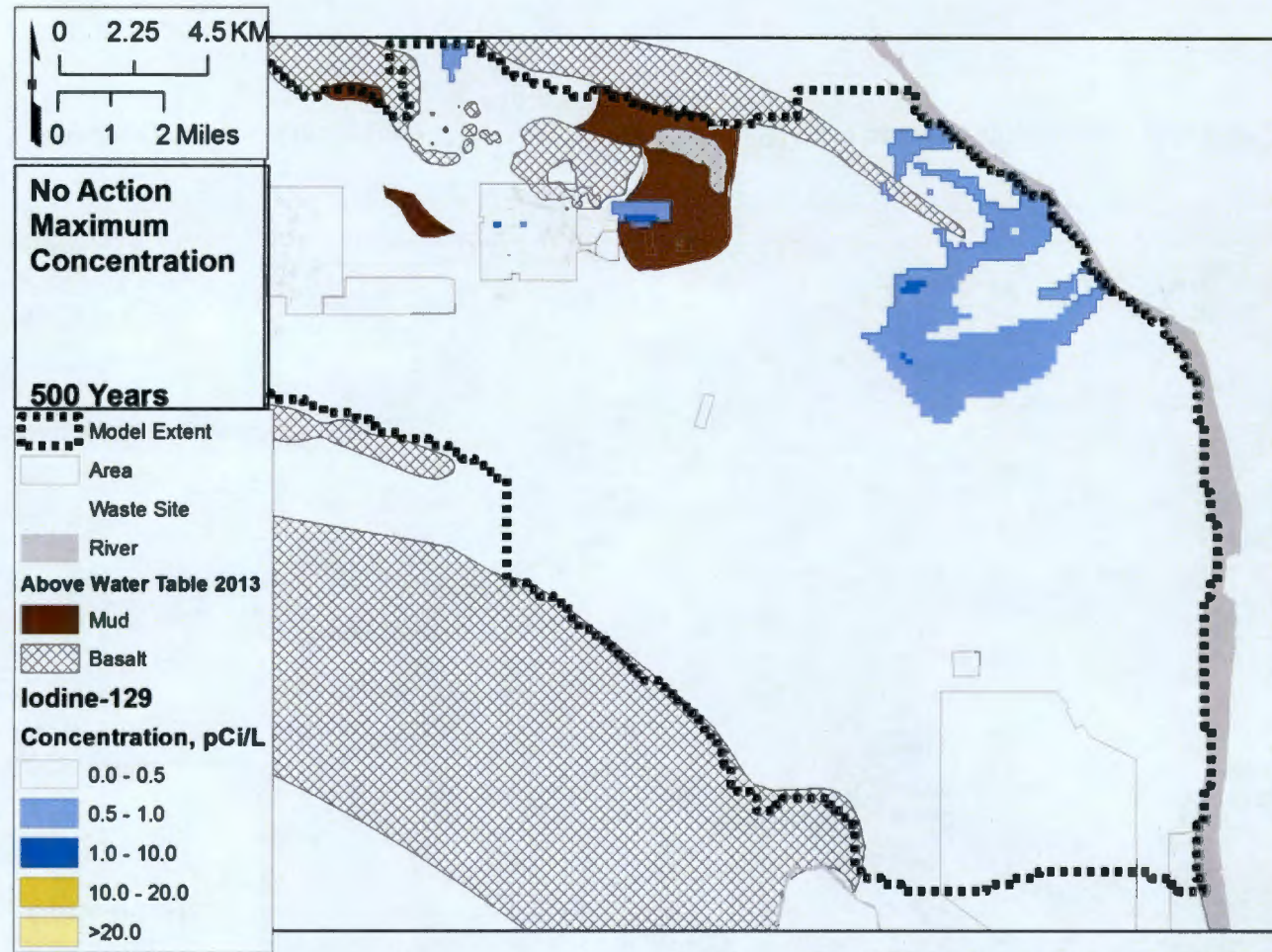
P2RGWM_i129_100.png (DoubleFigure_P2RGWM.mxd)

Figure B-112 - Plan view contours of the iodine-129 plume at simulation time 100 years based on the base case simulation using maximum concentration initial conditions



P2RGWM_i129_200.png (DoubleFigure_P2RGWM.mxd)

Figure B-113 - Plan view contours of the iodine-129 plume at simulation time 200 years based on the base case simulation using maximum concentration initial conditions



P2RGWM_i129_500.png (DoubleFigure_P2RGWM.mxd)

Figure B-114 - Plan view contours of the iodine-129 plume at simulation time 500 years based on the base case simulation using maximum concentration initial conditions

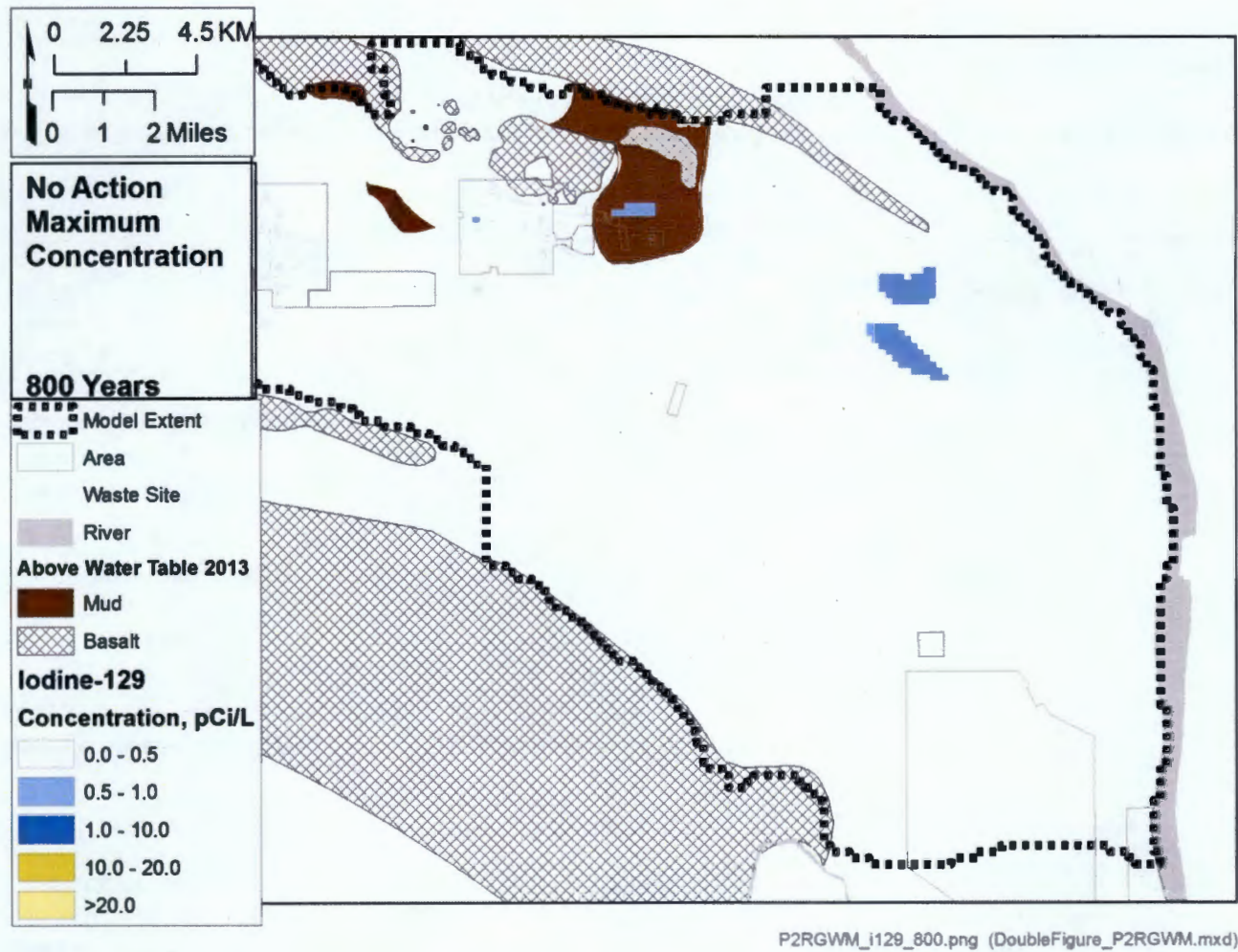


Figure B-115 - Plan view contours of the iodine-129 plume at simulation time 800 years based on the base case simulation using maximum concentration initial conditions

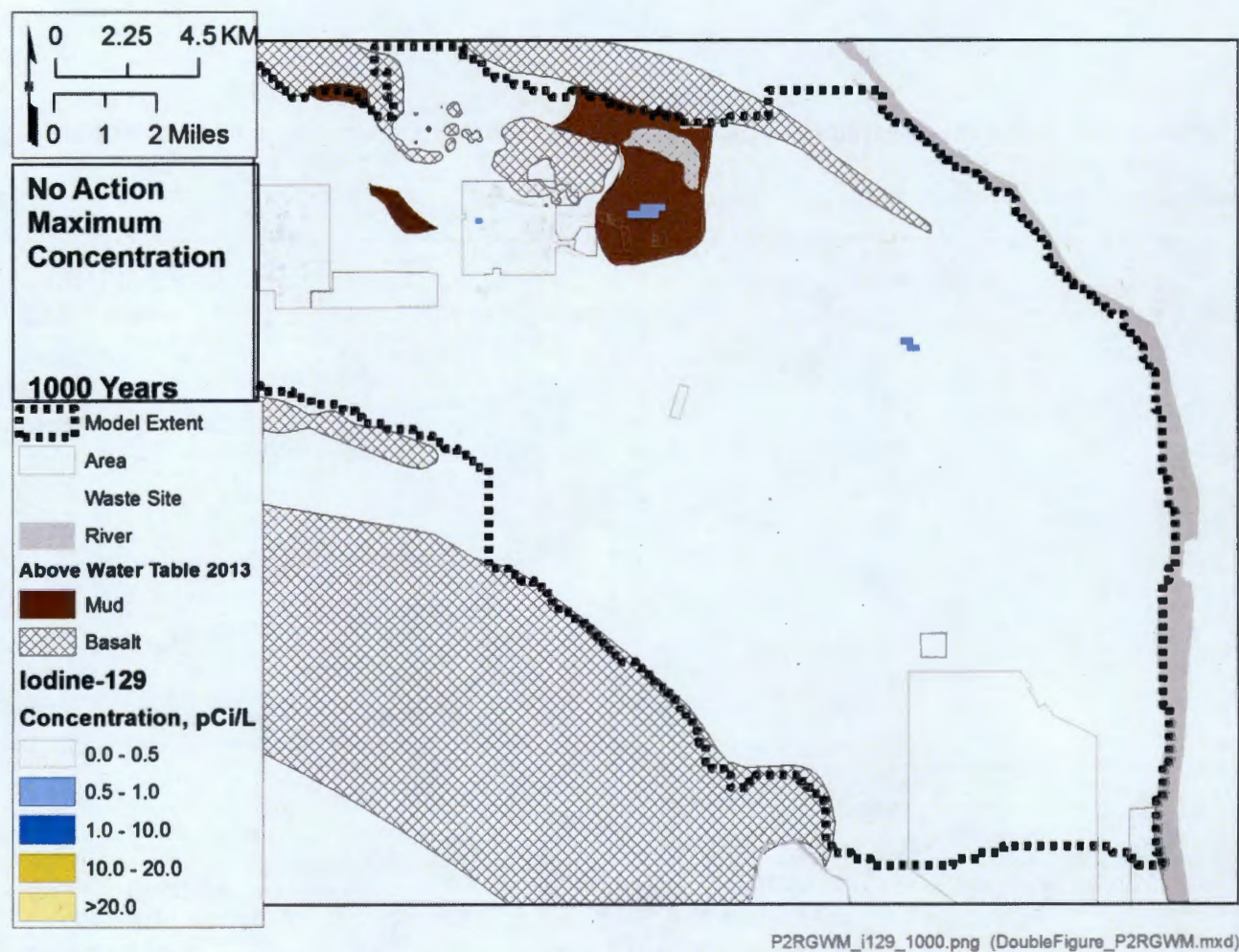


Figure B-116 - Plan view contours of the iodine-129 plume at simulation time 1000 years based on the base case simulation using maximum concentration initial conditions

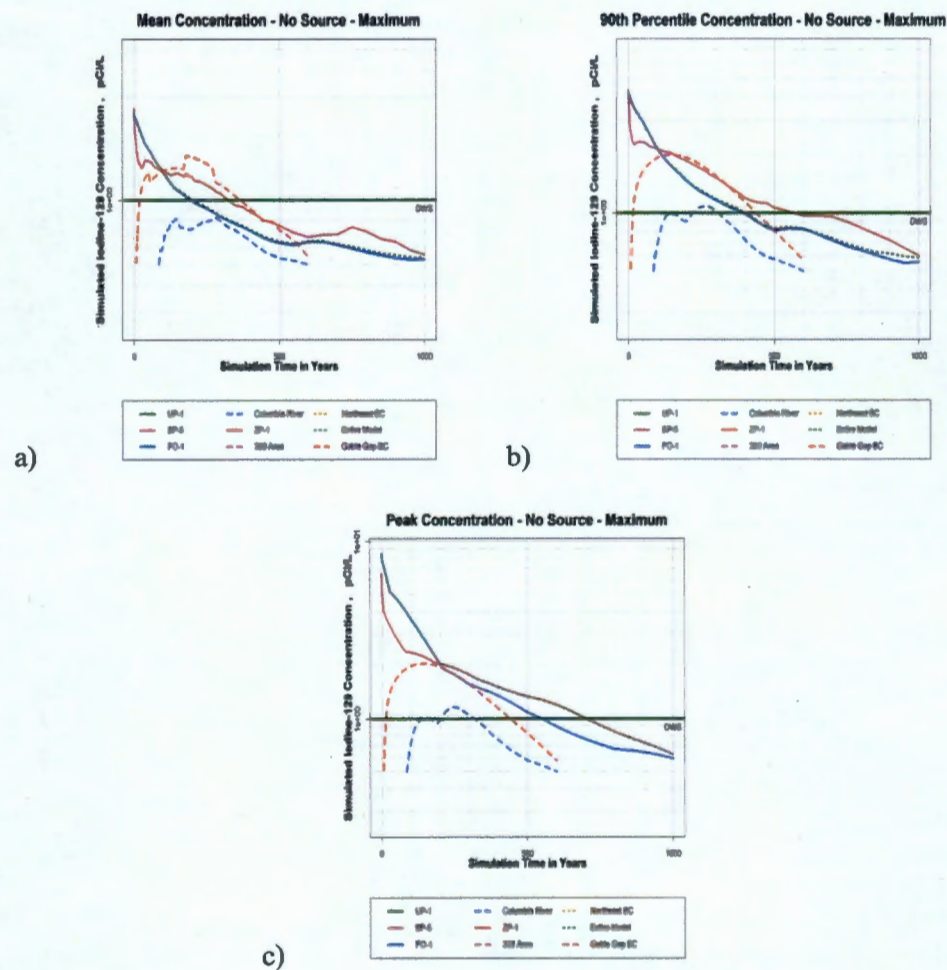


Figure B-117 - Statistical summary of simulated concentration within subregions of the model domain for the iodine-129 plume for the base case simulation using maximum concentration initial conditions.

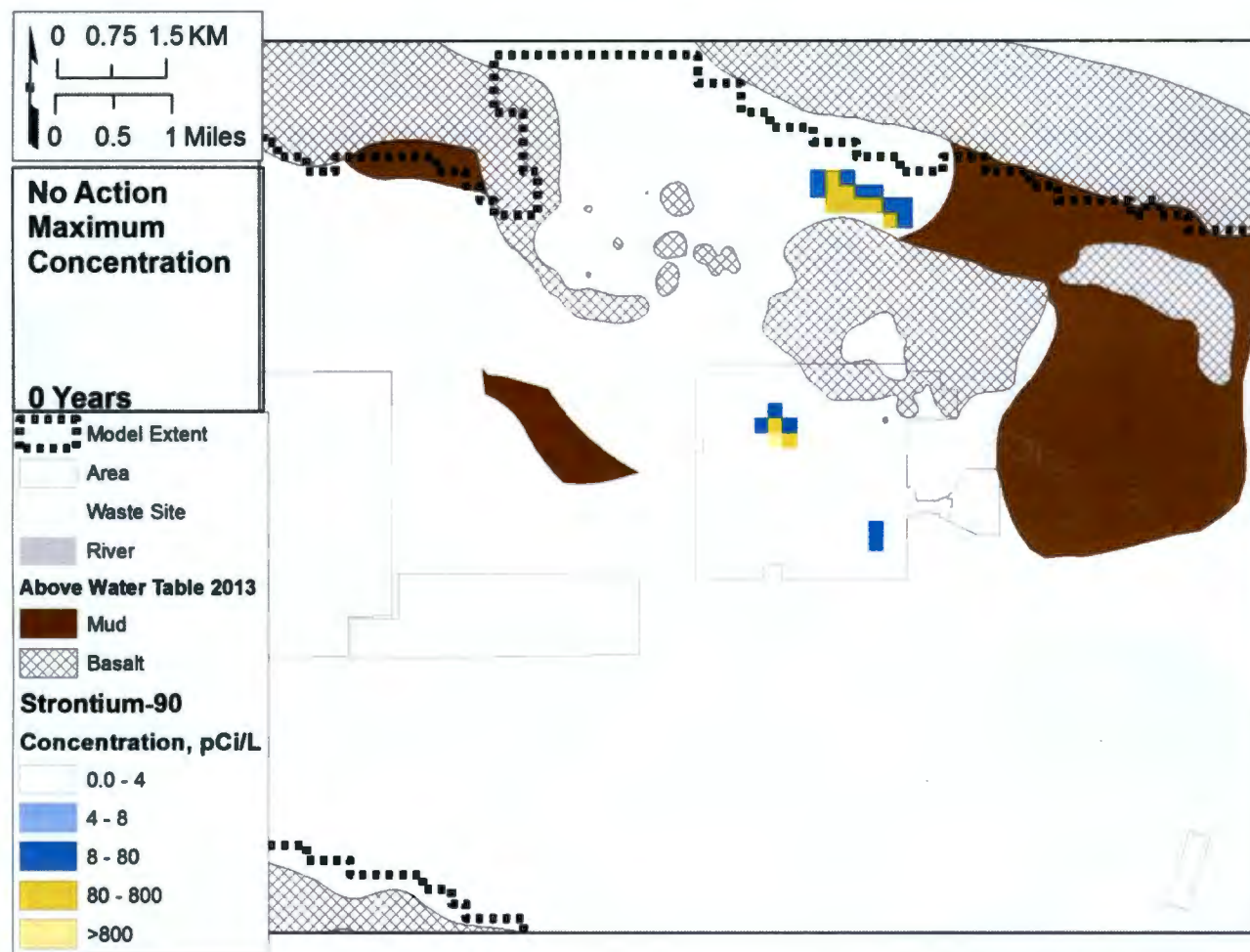
Table 12 - Summary of simulated concentrations (pCi/L) at selected well locations within the model domain for the iodine-129 base case simulation using the maximum concentration condition.

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
699-42-42B	200-PO-1	2.4	2.0	1.7	1.5	1.3	1.3	1.2	1.1	1.0	0.7	0.4	0.2	0.1	0.1	0.0	0.0	0.0
699-43-44	200-PO-1	4.2	2.9	2.6	2.4	2.2	2.0	1.8	1.7	1.4	0.9	0.6	0.4	0.2	0.1	0.1	0.1	0.0
699-43-45	200-PO-1	4.9	1.7	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-PO-1	2.3	1.7	1.2	0.8	0.6	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
299-E17-1	200-PO-1	4.4	1.4	0.9	0.6	0.5	0.4	0.3	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
299-E17-14	200-PO-1	7.1	4.5	3.0	2.2	1.7	1.4	1.2	1.0	0.9	0.5	0.3	0.2	0.1	0.1	0.1	0.1	0.1
299-E17-22	200-PO-1	1.9	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-23	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-25	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-16	200-PO-1	4.6	1.0	0.5	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-23	200-PO-1	4.6	1.4	0.7	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
299-E25-19	200-PO-1	3.1	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
299-E25-20	200-PO-1	3.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
299-E25-3	200-PO-1	2.5	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0
299-E25-36	200-PO-1	3.6	1.6	0.8	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1
699-37-47A	200-PO-1	3.9	2.7	1.9	1.5	1.2	1.0	0.8	0.7	0.6	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1
299-E24-20	200-PO-1	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-34	200-PO-1	3.8	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-93	200-PO-1	3.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-4	200-PO-1	5.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	4.9	1.7	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
CMAX	200-PO-1	8.2	5.5	4.8	4.2	3.7	3.2	2.8	2.4	2.0	1.6	1.4	1.1	0.9	0.8	0.7	0.6	0.6
299-E24-25	200-BP-5	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-2	200-BP-5	2.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-23	200-BP-5	2.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
299-E28-24	200-BP-5	2.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
299-E28-30	200-BP-5	2.6	2.1	1.7	1.5	1.3	1.2	1.1	1.0	1.0	0.8	0.8	0.7	0.6	0.6	0.5	0.4	0.4
299-E29-54	200-BP-5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-16	200-BP-5	3.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-18	200-BP-5	4.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-1A	200-BP-5	3.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-2	200-BP-5	3.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-205	200-BP-5	3.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-26	200-BP-5	4.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-3	200-BP-5	3.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-31	200-BP-5	3.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-32	200-BP-5	3.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-337	200-BP-5	3.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-339	200-BP-5	4.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E33-341	200-BP-5	3.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-342	200-BP-5	3.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-343	200-BP-5	4.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-345	200-BP-5	4.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-38	200-BP-5	3.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-4	200-BP-5	2.9	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-41	200-BP-5	4.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-42	200-BP-5	3.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-43	200-BP-5	3.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-44	200-BP-5	3.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-47	200-BP-5	4.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-49	200-BP-5	3.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-5	200-BP-5	3.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-7	200-BP-5	2.9	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-9	200-BP-5	3.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-BP-5	2.3	1.7	1.2	0.8	0.6	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
699-49-57A	200-BP-5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-50-56	200-BP-5	0.0	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
699-50-59	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-55C	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-55-57	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-57-59	200-BP-5	2.7	2.6	2.4	2.3	2.2	2.0	1.9	1.7	1.6	1.1	0.8	0.5	0.3	0.2	0.2	0.1	0.1
699-60-60	200-BP-5	0.0	0.8	1.1	1.2	1.3	1.3	1.4	1.4	1.4	1.2	1.0	0.7	0.5	0.4	0.3	0.2	0.1
699-61-62	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1
699-53-47B	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-48A	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-54-49	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-27	200-BP-5	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-10	200-BP-5	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-6	200-BP-5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-7	200-BP-5	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-9	200-BP-5	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-29	200-BP-5	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-34	200-BP-5	3.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-35	200-BP-5	3.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-10	200-BP-5	1.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-12	200-BP-5	2.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-9	200-BP-5	2.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-13	200-BP-5	5.1	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E27-14	200-BP-5	5.4	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-155	200-BP-5	4.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-21	200-BP-5	4.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-22	200-BP-5	5.1	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-23	200-BP-5	4.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-24	200-BP-5	4.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-4	200-BP-5	4.9	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



P2RGWM_sr90_0.png (DoubleFigure_P2RGWM.mxd)

Figure B-118 - Plan view contours of the strontium-90 plume at simulation time 0 years based on the base case simulation using maximum concentration initial conditions

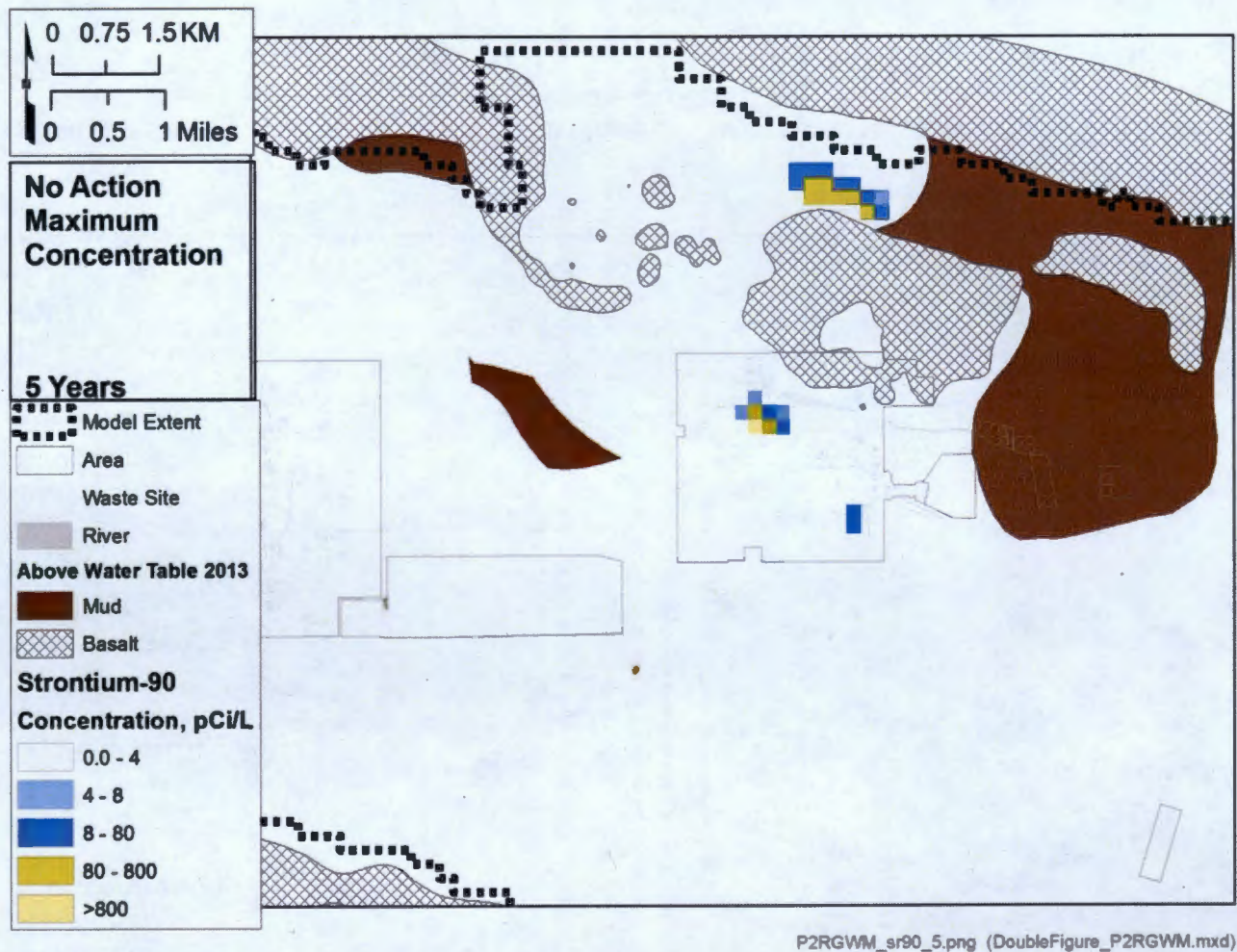


Figure B-119 - Plan view contours of the strontium-90 plume at simulation time 5 years based on the base case simulation using maximum concentration initial conditions

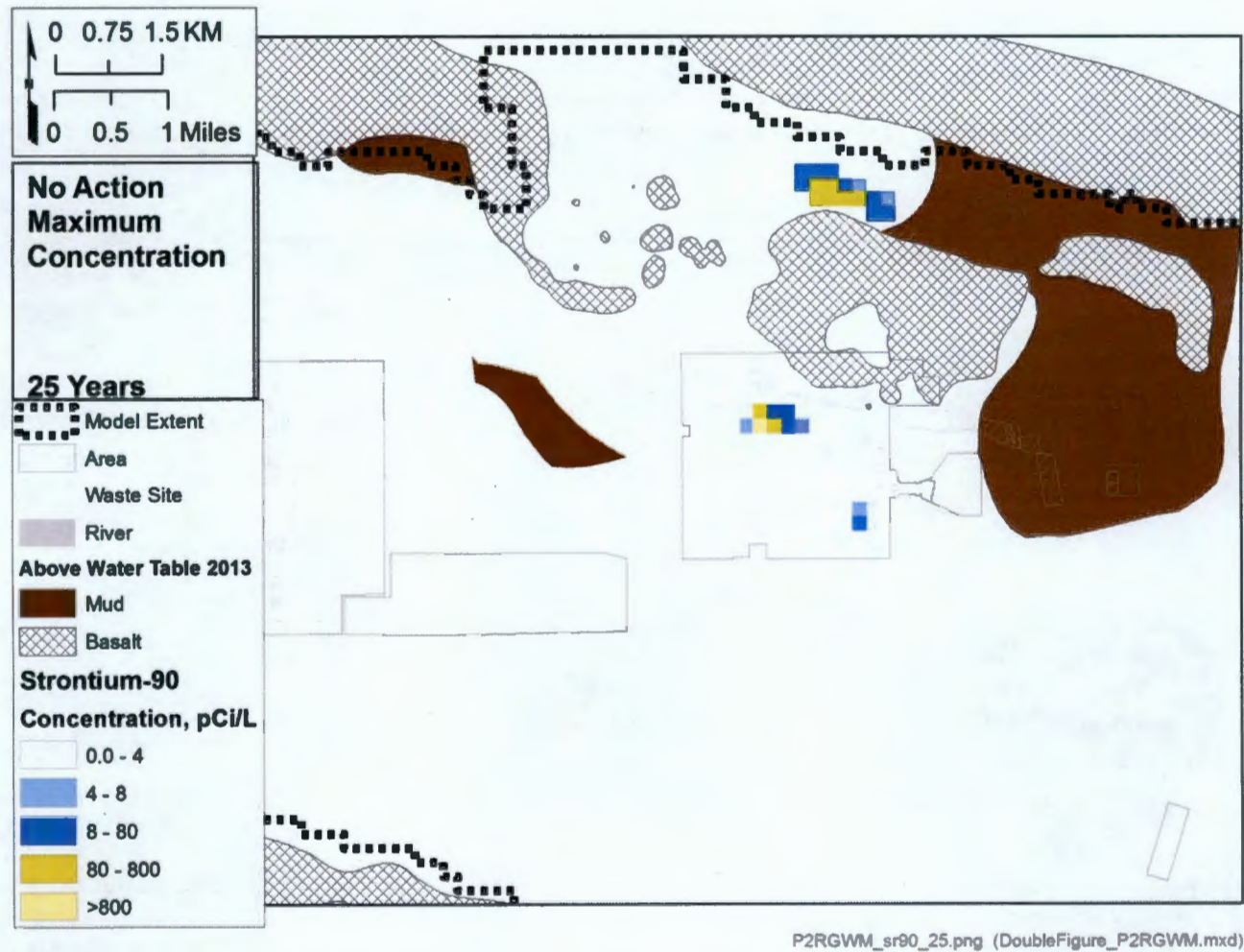
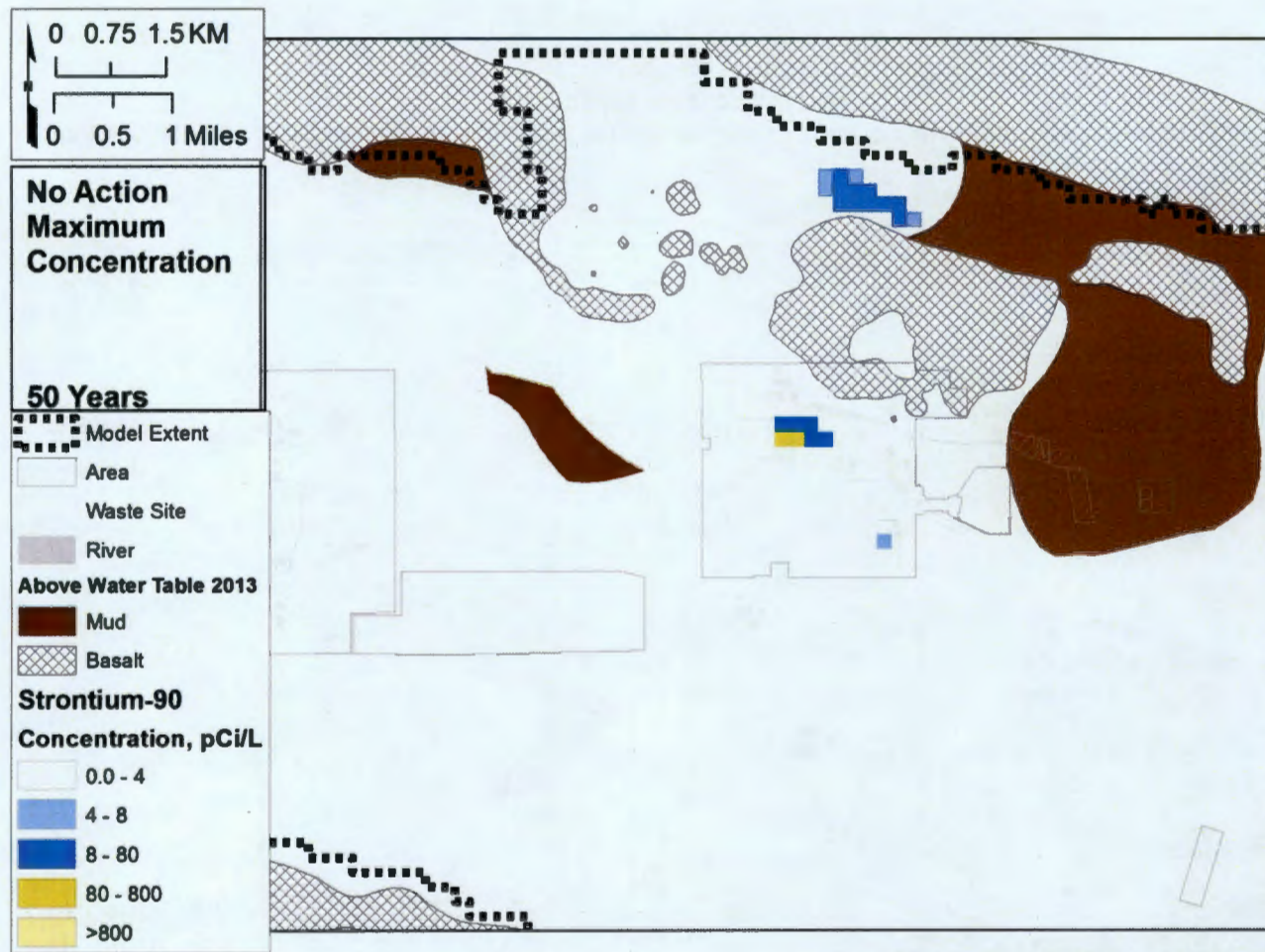


Figure B-120 - Plan view contours of the strontium-90 plume at simulation time 25 years based on the base case simulation using maximum concentration initial conditions



P2RGWM_sr90_50.png (DoubleFigure_P2RGWM.mxd)

Figure B-121 - Plan view contours of the strontium-90 plume at simulation time 50 years based on the base case simulation using maximum concentration initial conditions

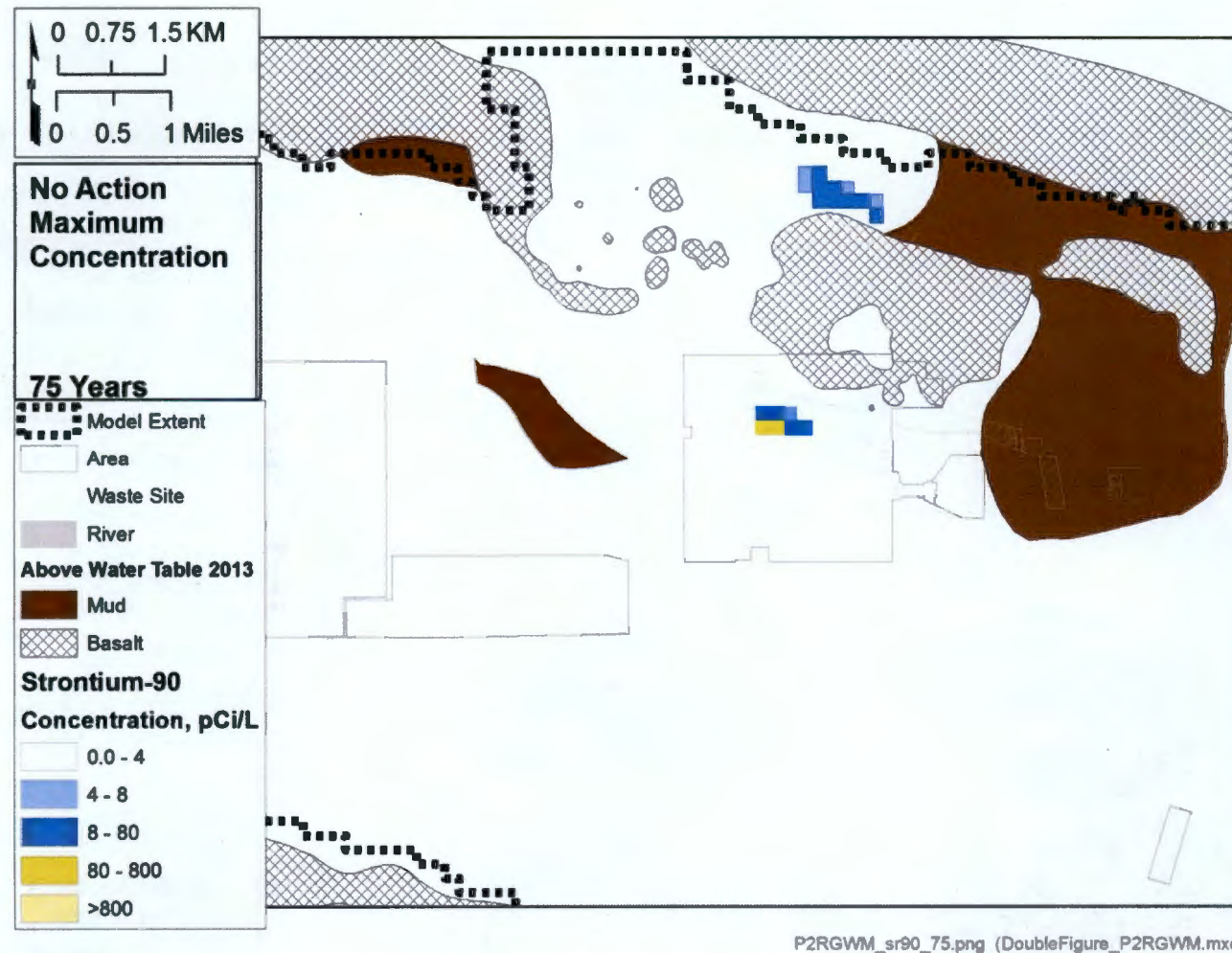


Figure B-122 - Plan view contours of the strontium-90 plume at simulation time 75 years based on the base case simulation using maximum concentration initial conditions

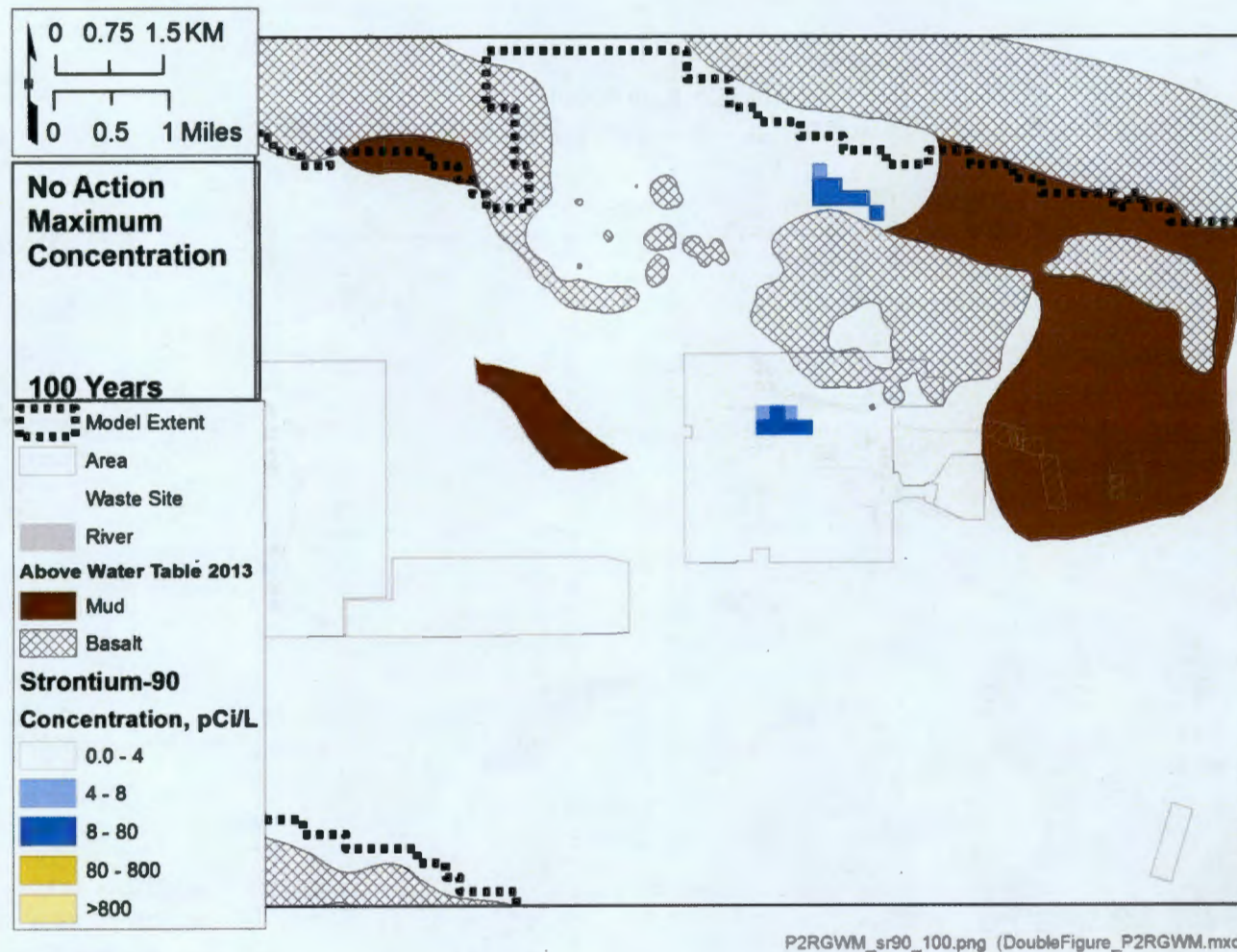
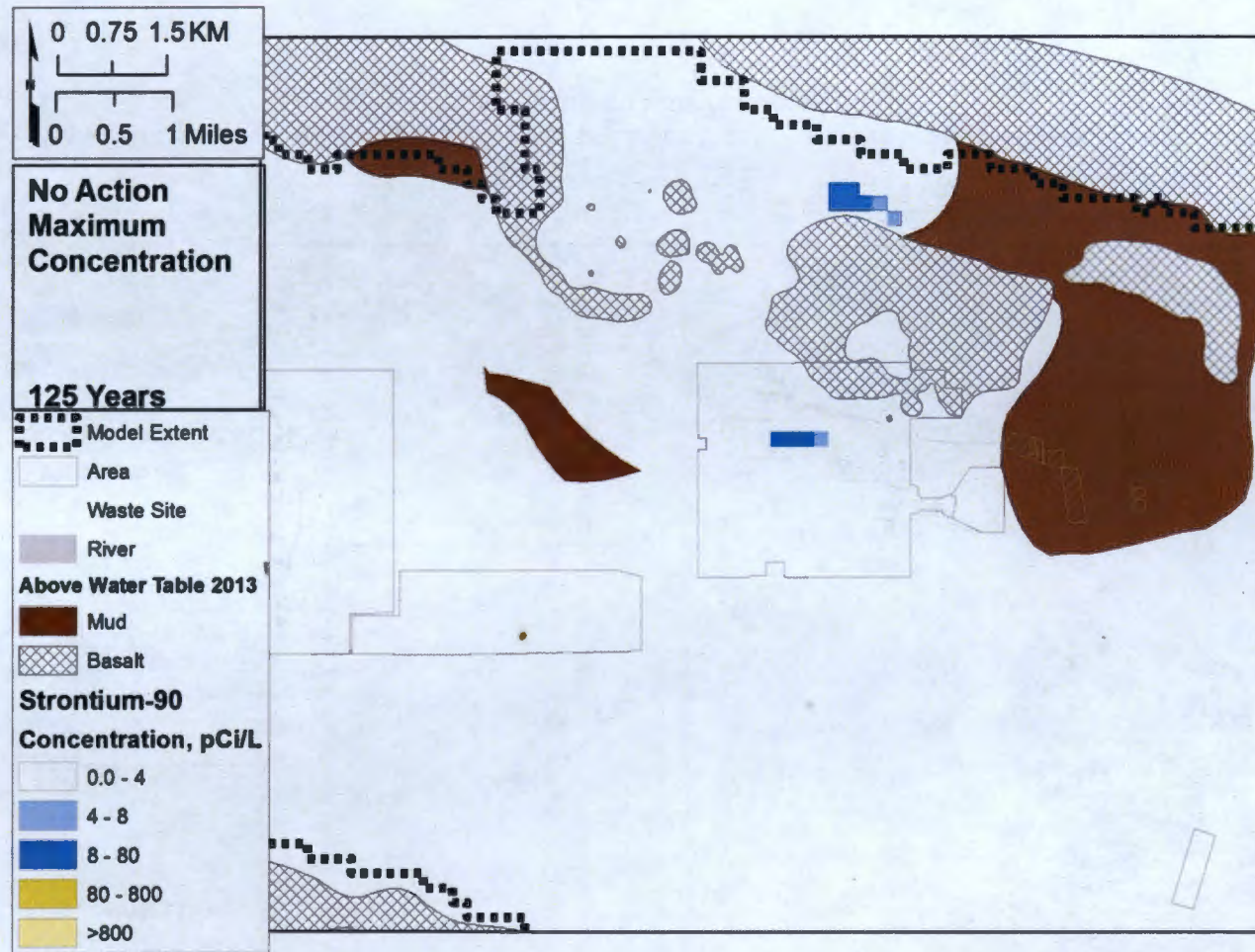


Figure B-123 - Plan view contours of the strontium-90 plume at simulation time 100 years based on the base case simulation using maximum concentration initial conditions



P2RGWM_sr90_125.png (DoubleFigure_P2RGWM.mxd)

Figure B-124 - Plan view contours of the strontium-90 plume at simulation time 125 years based on the base case simulation using maximum concentration initial conditions

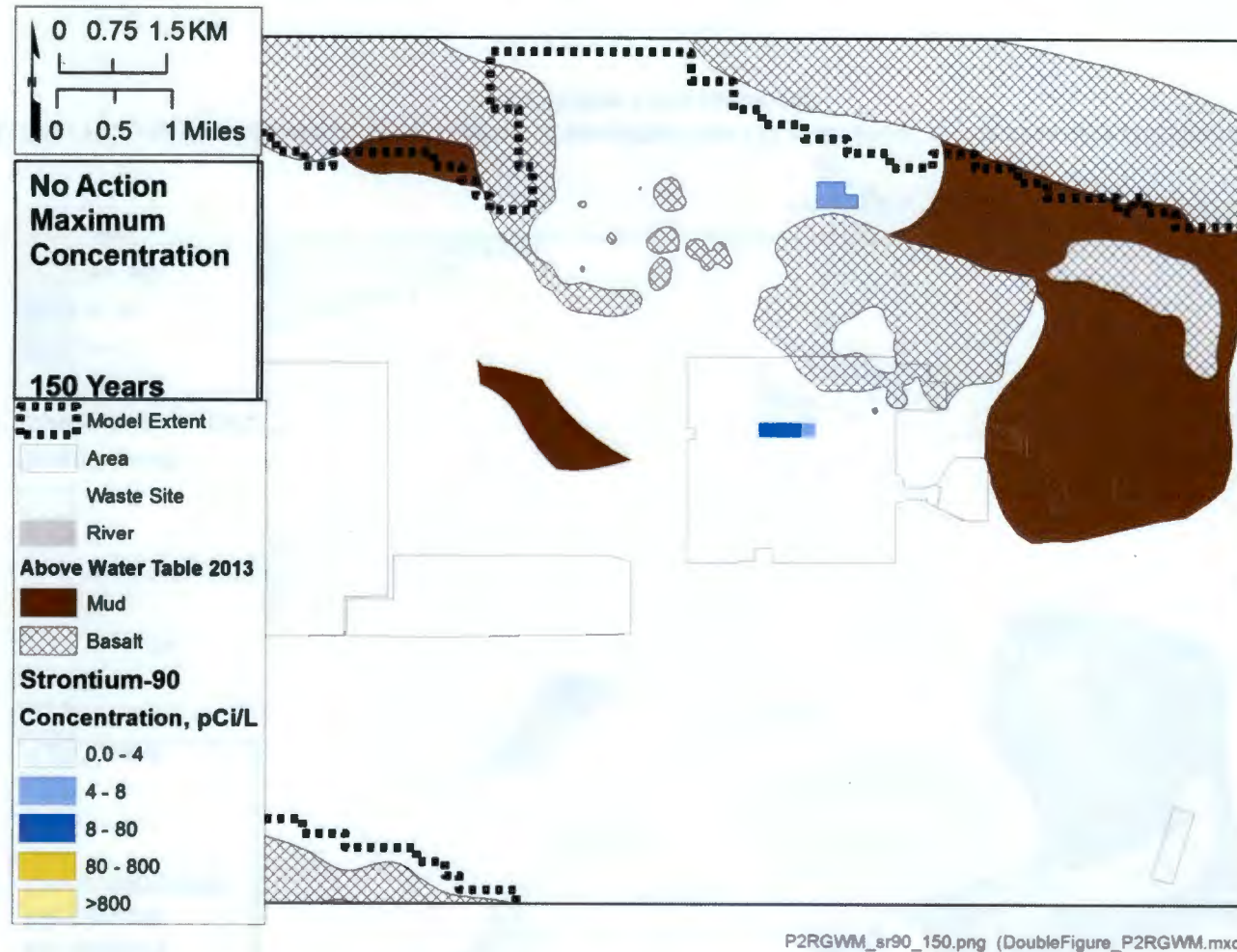


Figure B-125 - Plan view contours of the strontium-90 plume at simulation time 150 years based on the base case simulation using maximum concentration initial conditions

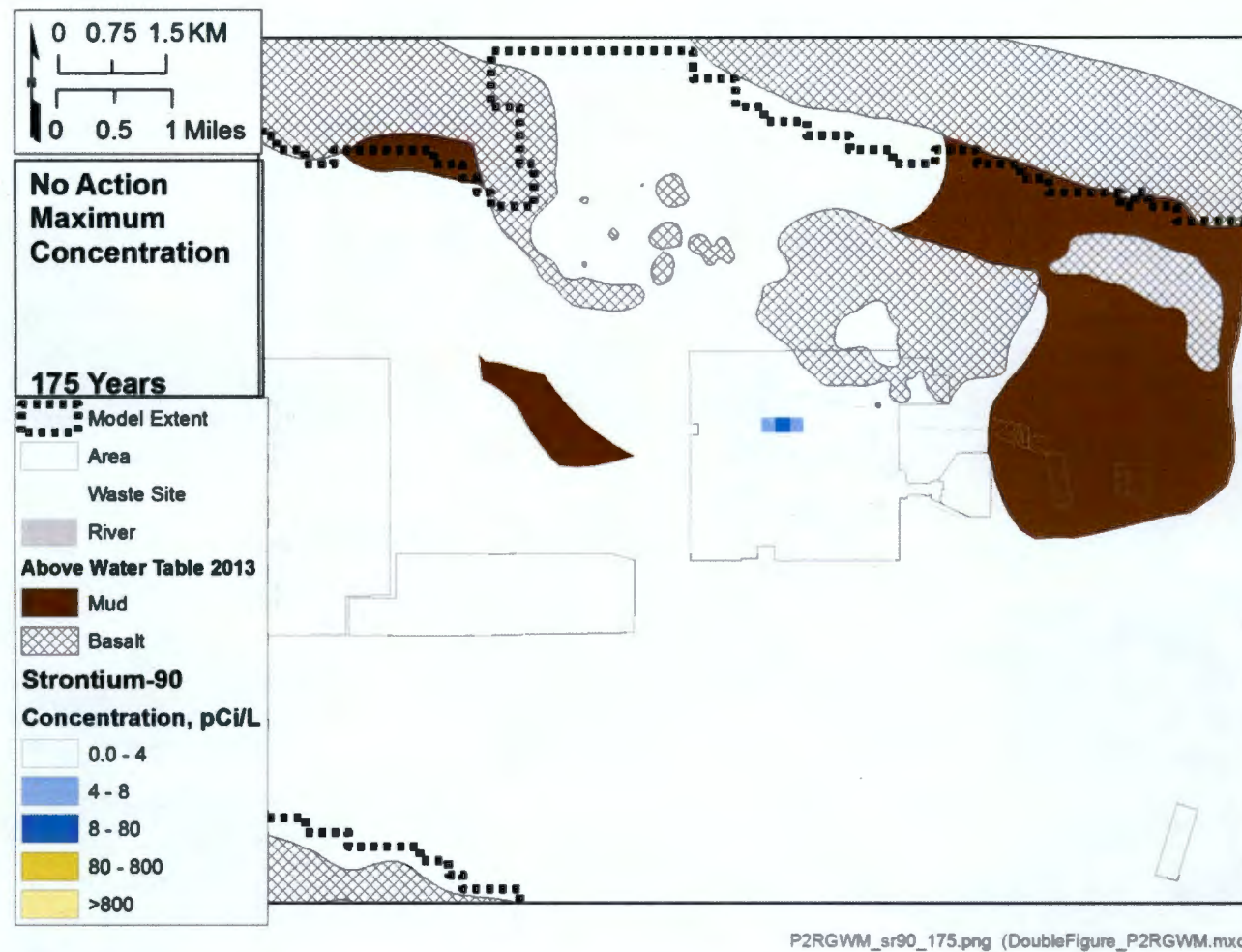
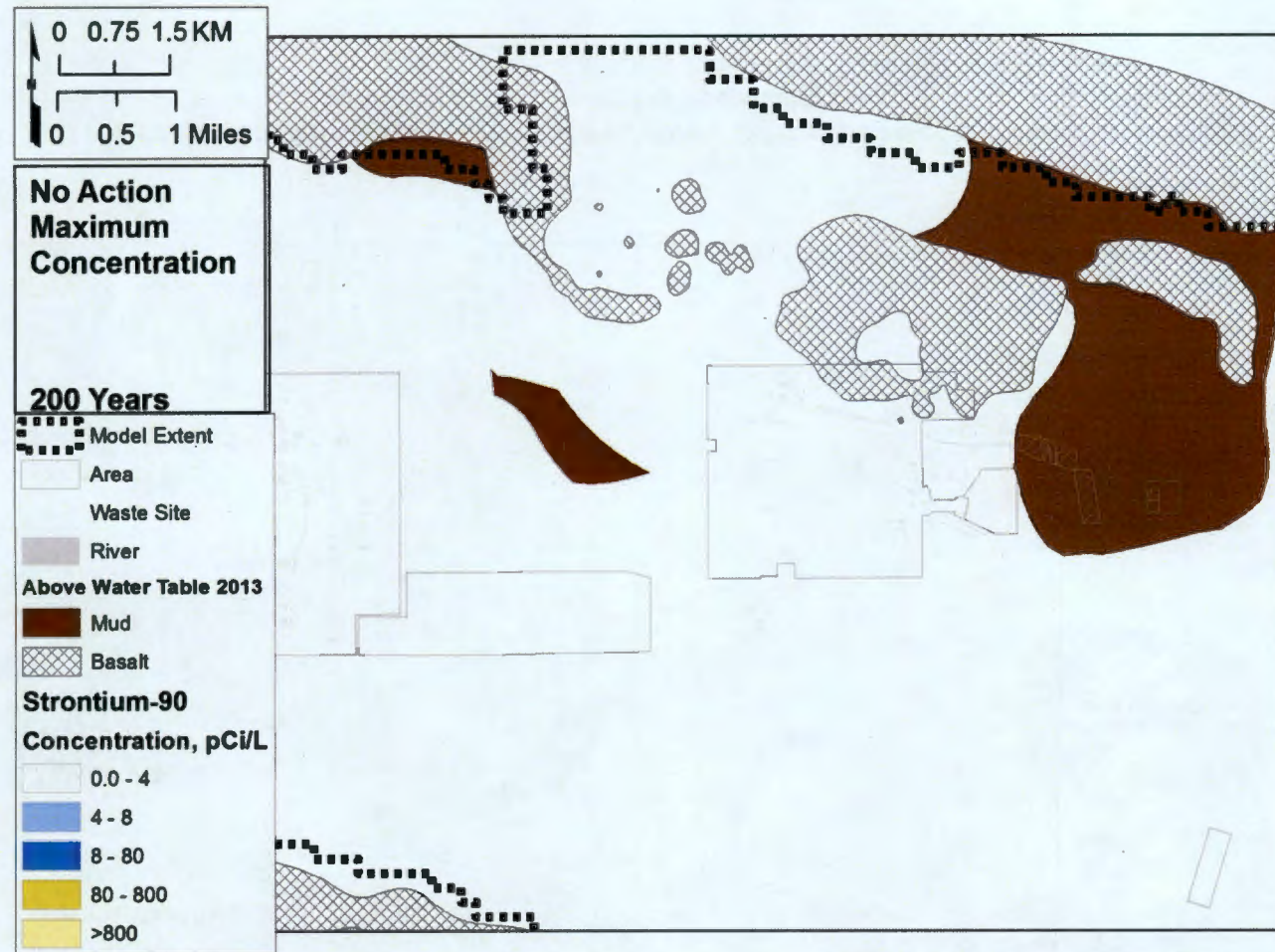


Figure B-126 - Plan view contours of the strontium-90 plume at simulation time 175 years based on the base case simulation using maximum concentration initial conditions



P2RGWM_sr90_200.png (DoubleFigure_P2RGWM.mxd)

Figure B-127 - Plan view contours of the strontium-90 plume at simulation time 200 years based on the base case simulation using maximum concentration initial conditions

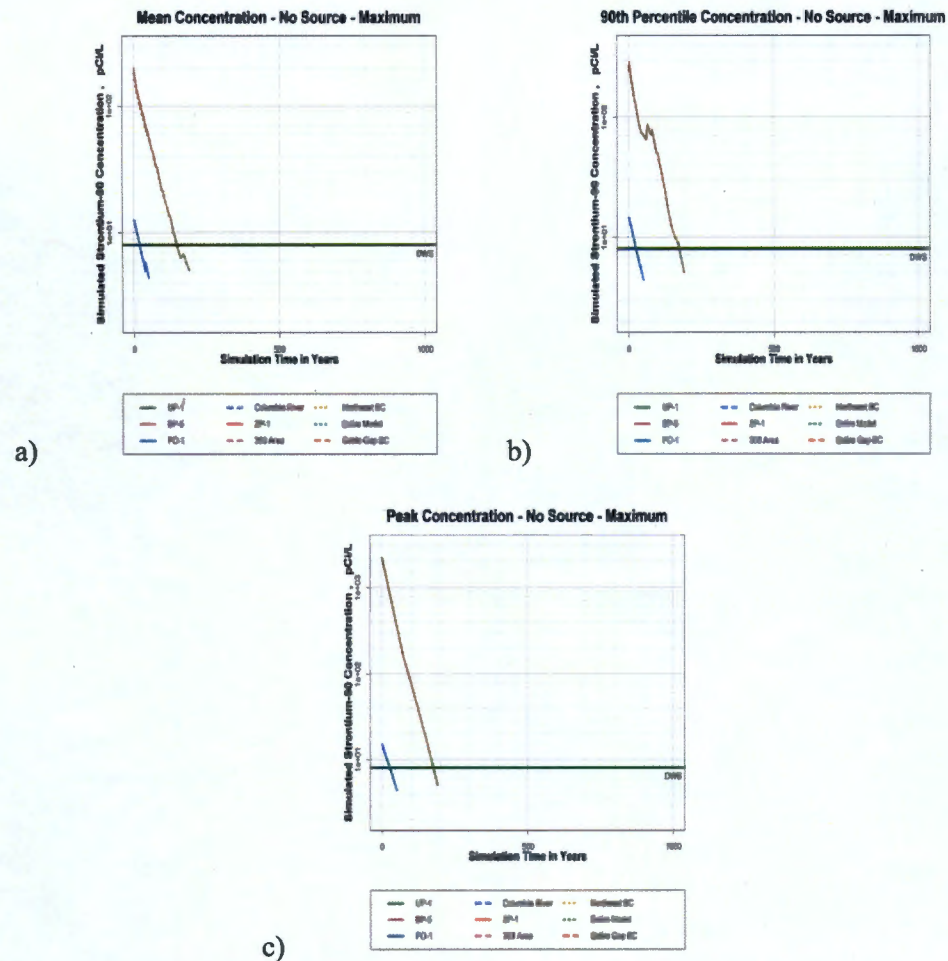


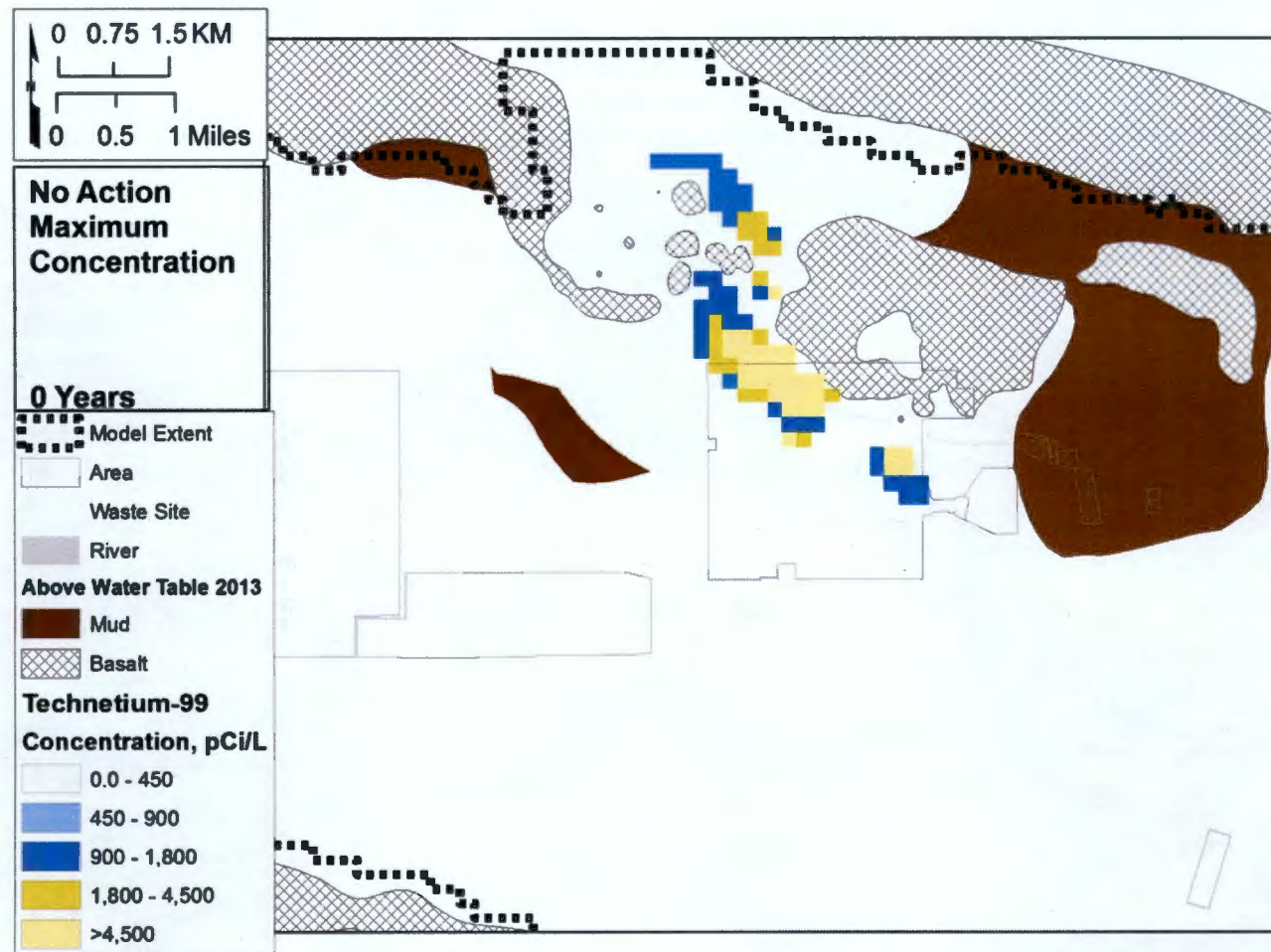
Figure B-128 - Statistical summary of simulated concentration within subregions of the model domain for the strontium-90 plume for the base case simulation using maximum concentration initial conditions.

Table 13 - Summary of simulated concentrations (pCi/L) at selected well locations within the model domain for the strontium-90 base case simulation using the maximum concentration condition.

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
699-42-42B	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-44	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-1	200-PO-1	4.8	2.4	1.2	0.7	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-14	200-PO-1	13.3	7.2	3.8	2.1	1.1	0.6	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-22	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-23	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-25	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-16	200-PO-1	6.3	2.7	1.4	0.8	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-23	200-PO-1	4.3	2.4	1.3	0.7	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-19	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-20	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-3	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-36	200-PO-1	0.0	0.3	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-37-47A	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-20	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-34	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-93	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-4	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CMAx	200-PO-1	14.5	8.1	4.4	2.4	1.3	0.7	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-25	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-2	200-BP-5	639.9	261.4	102.7	40.5	16.0	6.4	2.6	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-23	200-BP-5	1328.8	648.2	300.6	136.7	61.3	27.1	11.9	6.1	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-24	200-BP-5	1300.8	642.1	300.4	137.5	61.9	27.5	12.1	6.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-30	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E29-54	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-16	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-18	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-1A	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-2	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-205	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-26	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-3	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-31	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-32	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-337	200-BP-5	3.3	1.8	0.9	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-339	200-BP-5	2.9	1.1	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

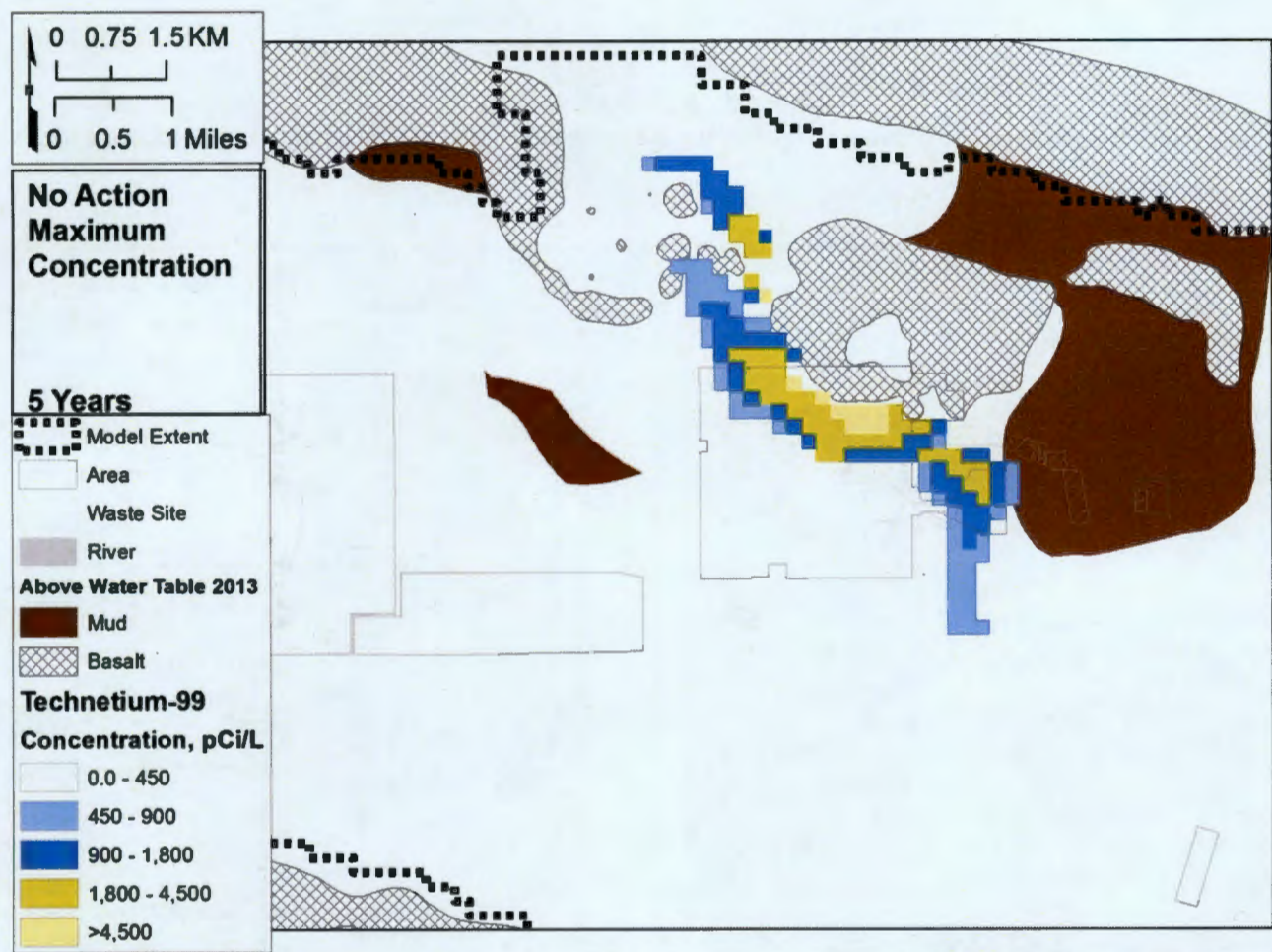
Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E33-341	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-342	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-343	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-345	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-38	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-4	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-41	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-42	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-43	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-44	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-47	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-49	200-BP-5	2.6	1.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-5	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-7	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-9	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-49-57A	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-50-56	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-50-59	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-55C	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-55-57	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-57-59	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-60-60	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-61-62	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-47B	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-48A	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-54-49	200-BP-5	162.3	91.0	49.8	27.2	14.9	8.2	4.5	2.8	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-27	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-6	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-7	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-9	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-29	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-34	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-35	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-12	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-9	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-13	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E27-14	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-155	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-21	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-22	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-23	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-24	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-4	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



P2RGWM_tc99_0.png (DoubleFigure_P2RGWM.mxd)

Figure B-129 - Plan view contours of the technetium-99 plume at simulation time 0 years based on the base case simulation using maximum concentration initial conditions



P2RGWM_tc99_5.png (DoubleFigure_P2RGWM.mxd)

Figure B-130 - Plan view contours of the technetium-99 plume at simulation time 5 years based on the base case simulation using maximum concentration initial conditions

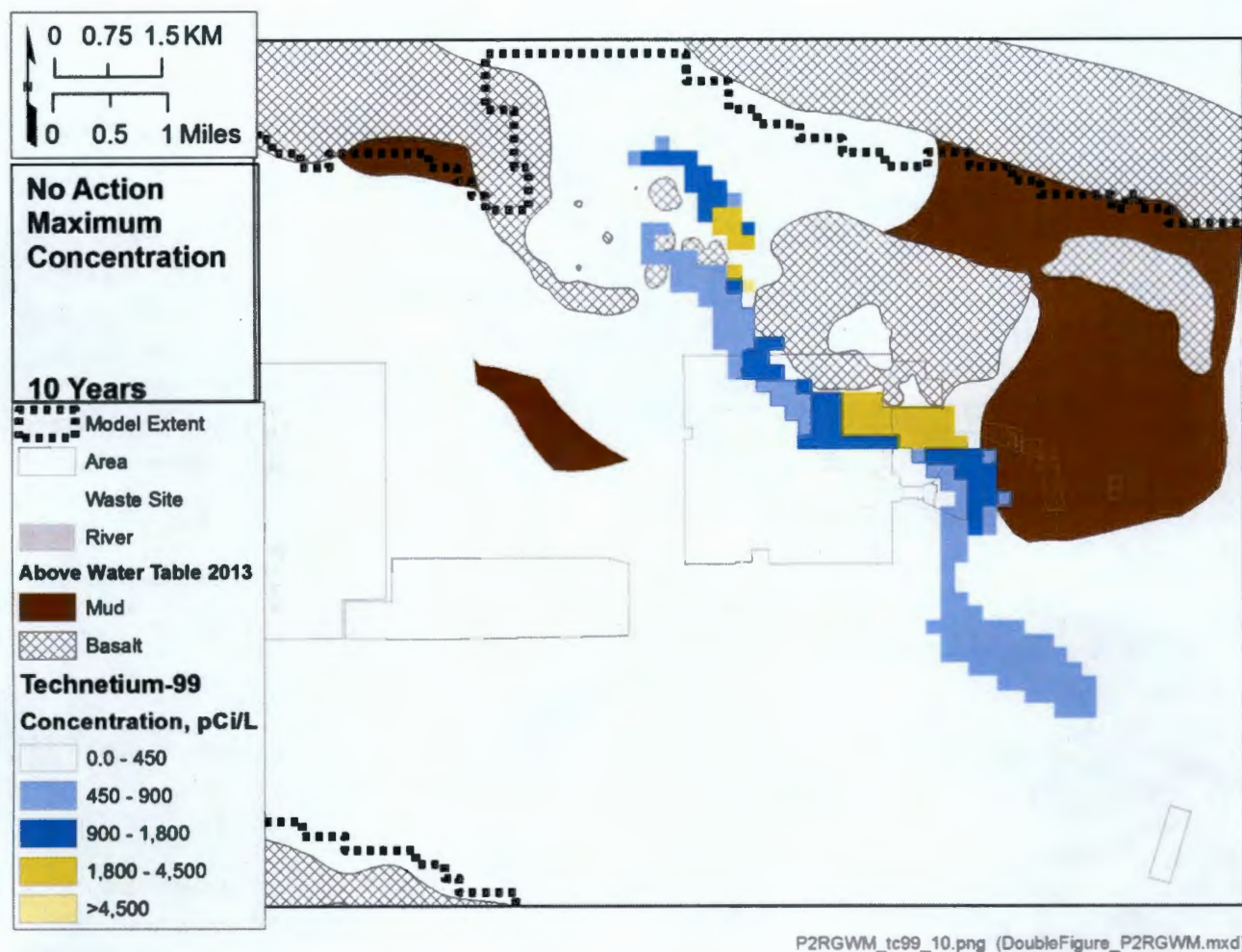


Figure B-131 - Plan view contours of the technetium-99 plume at simulation time 10 years based on the base case simulation using maximum concentration initial conditions

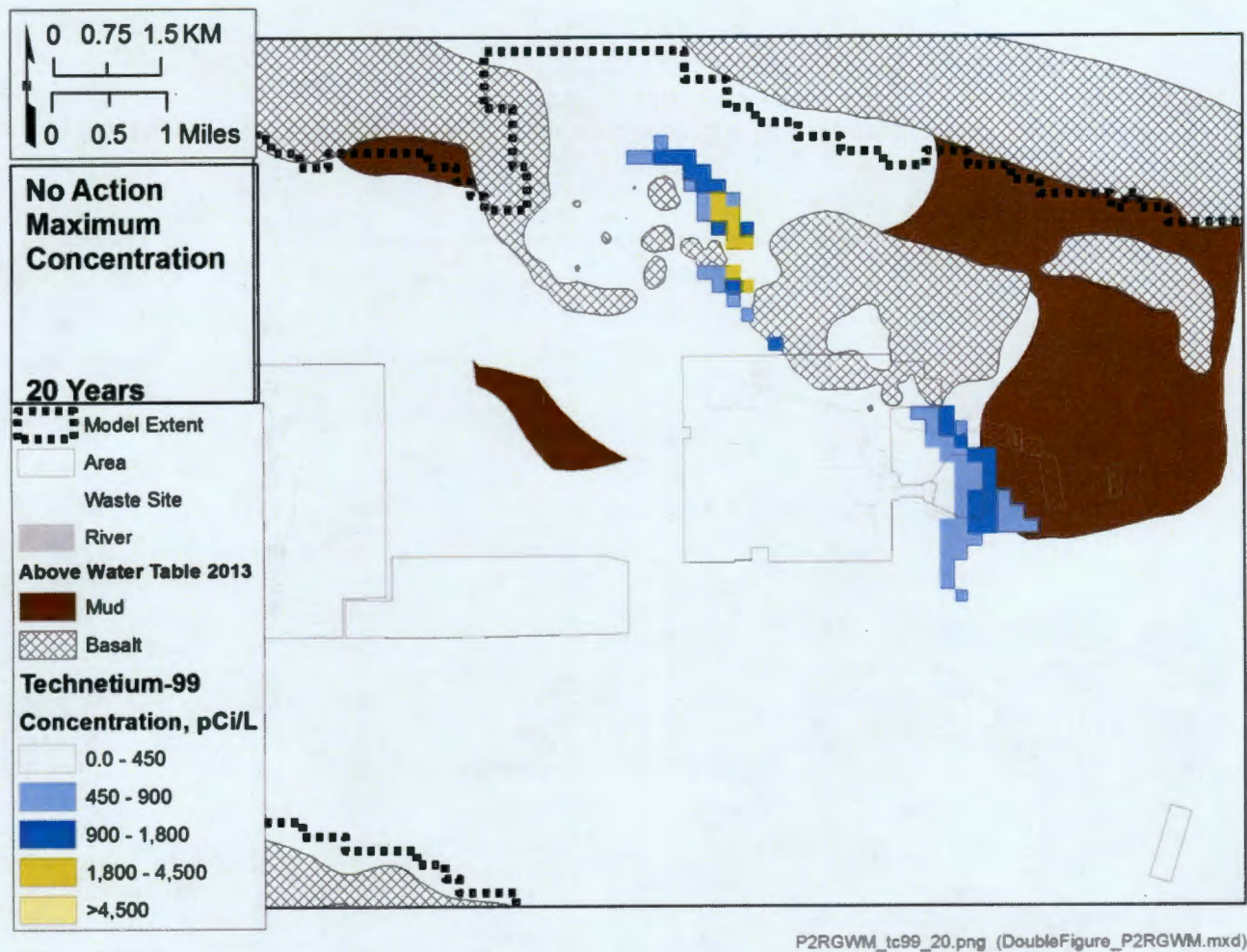


Figure B-132 - Plan view contours of the technetium-99 plume at simulation time 20 years based on the base case simulation using maximum concentration initial conditions

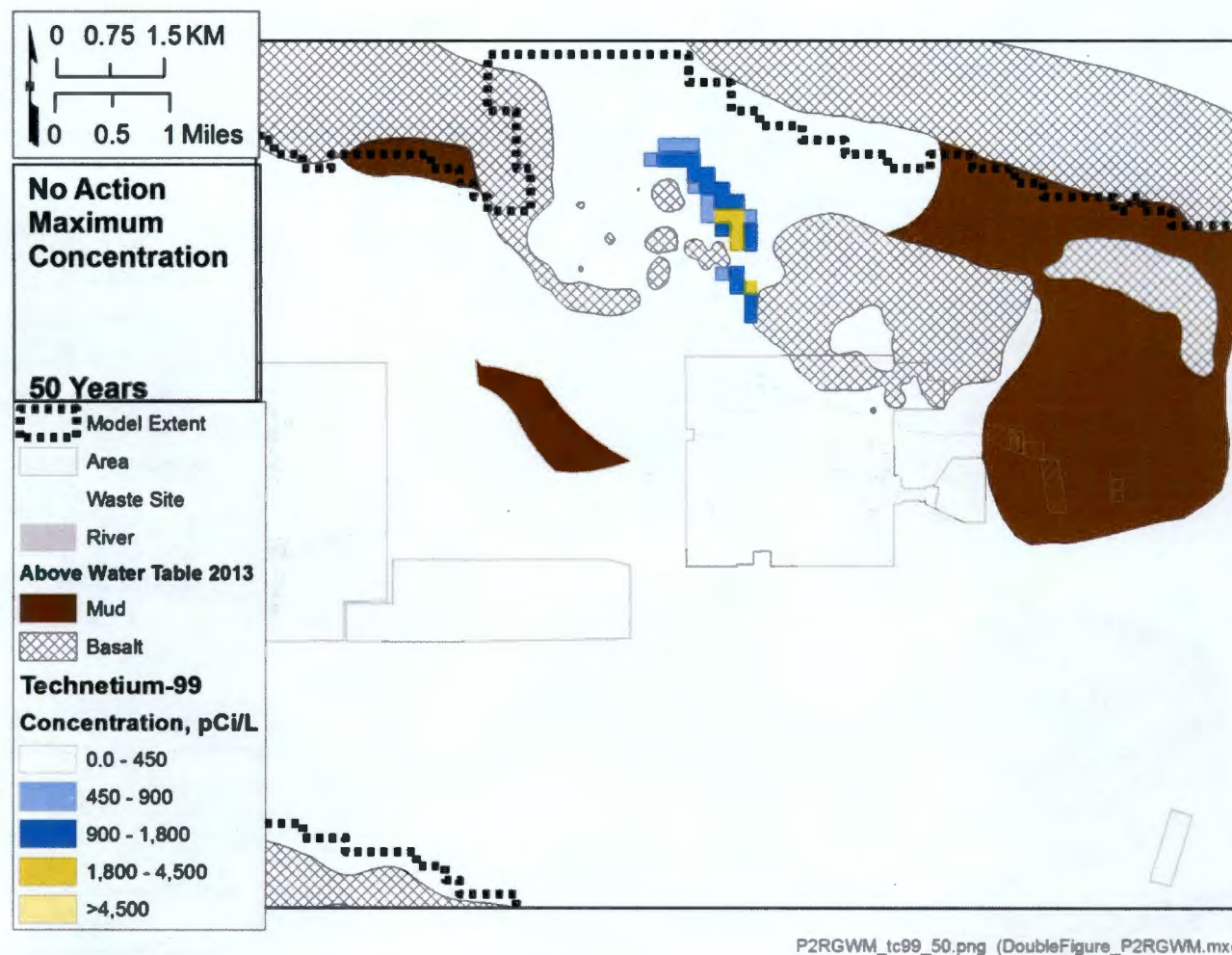


Figure B-133 - Plan view contours of the technetium-99 plume at simulation time 50 years based on the base case simulation using maximum concentration initial conditions

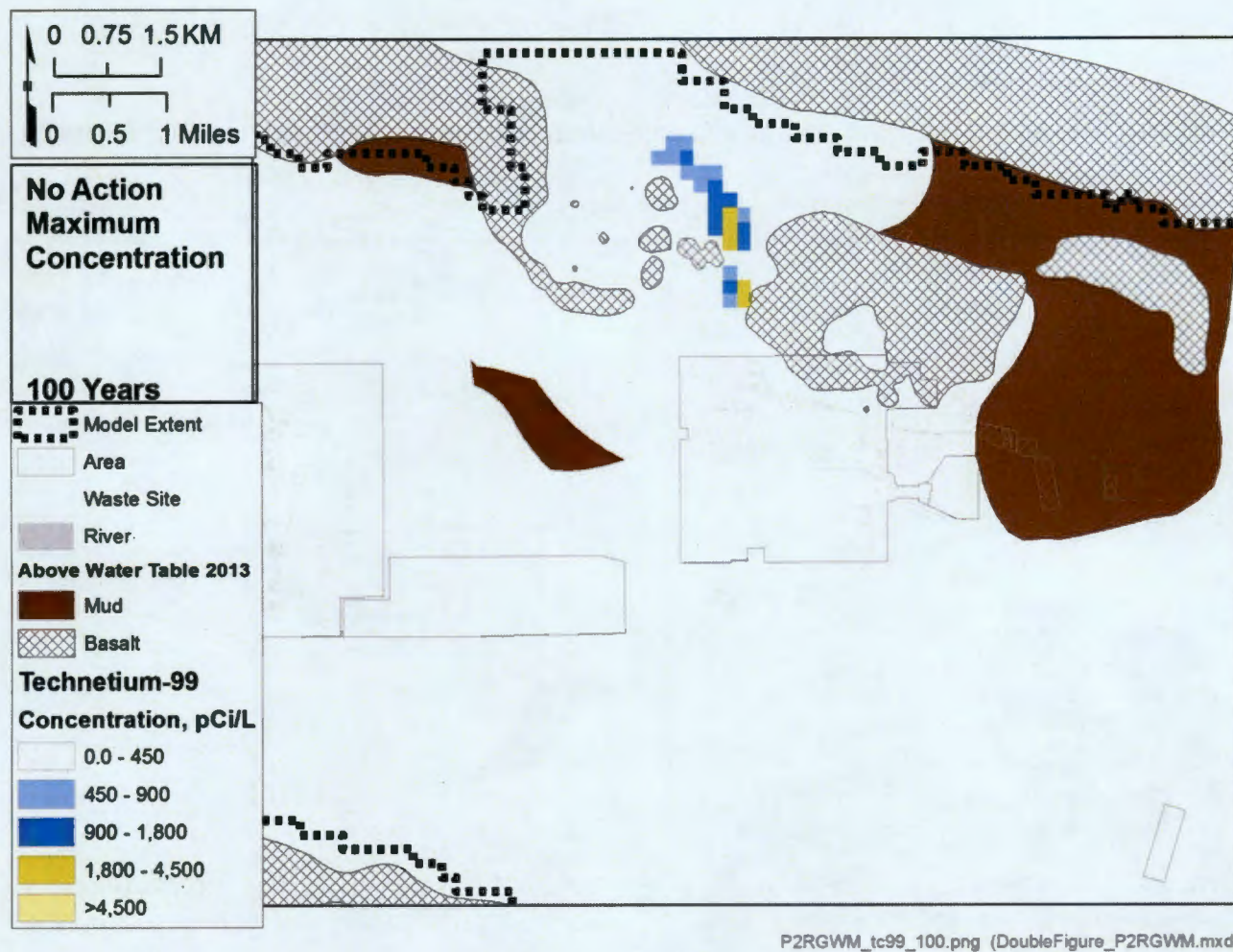
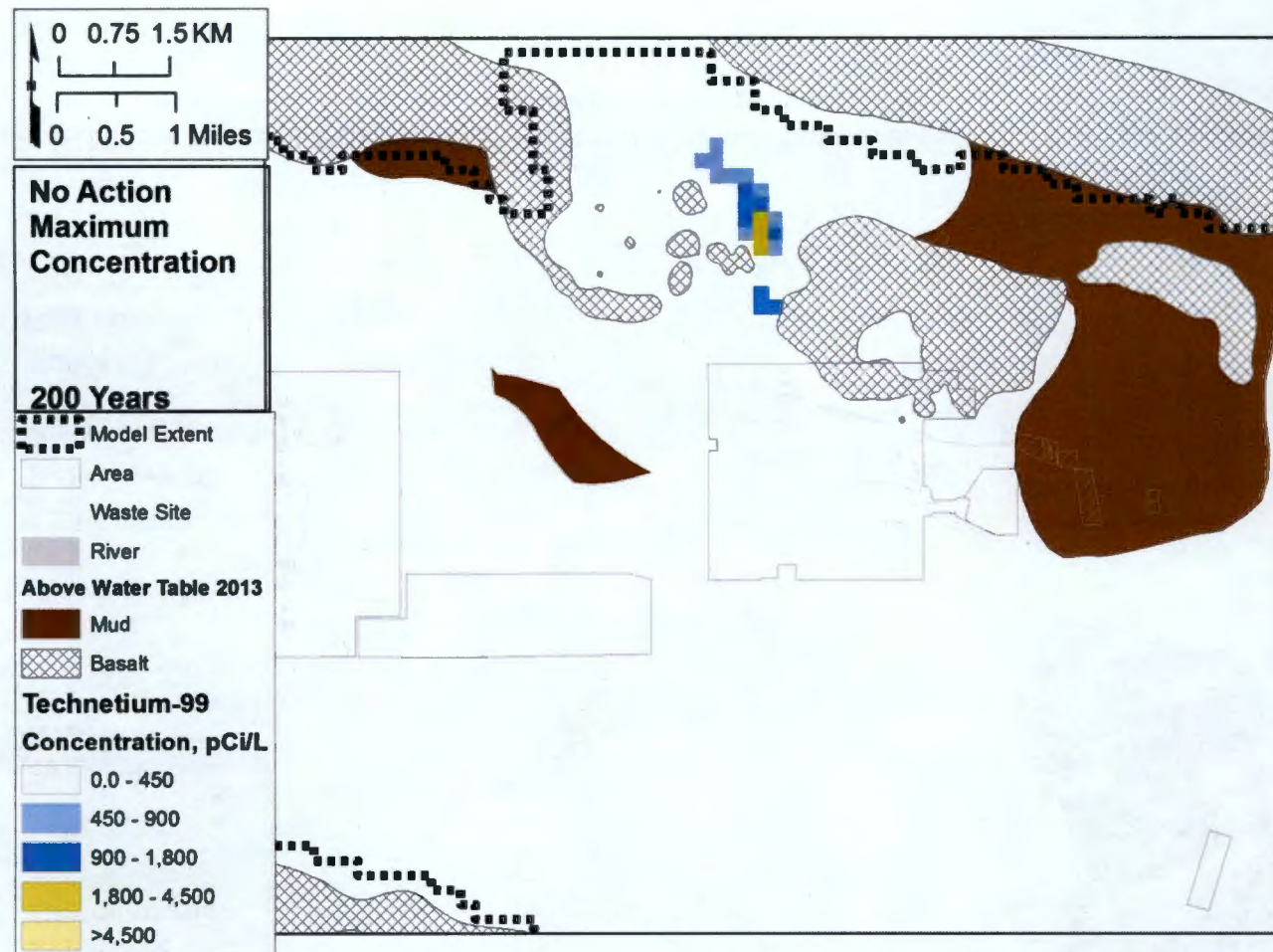


Figure B-134 - Plan view contours of the technetium-99 plume at simulation time 100 years based on the base case simulation using maximum concentration initial conditions



P2RGWM_tc99_200.png (DoubleFigure_P2RGWM.mxd)

Figure B-135 - Plan view contours of the technetium-99 plume at simulation time 200 years based on the base case simulation using maximum concentration initial conditions

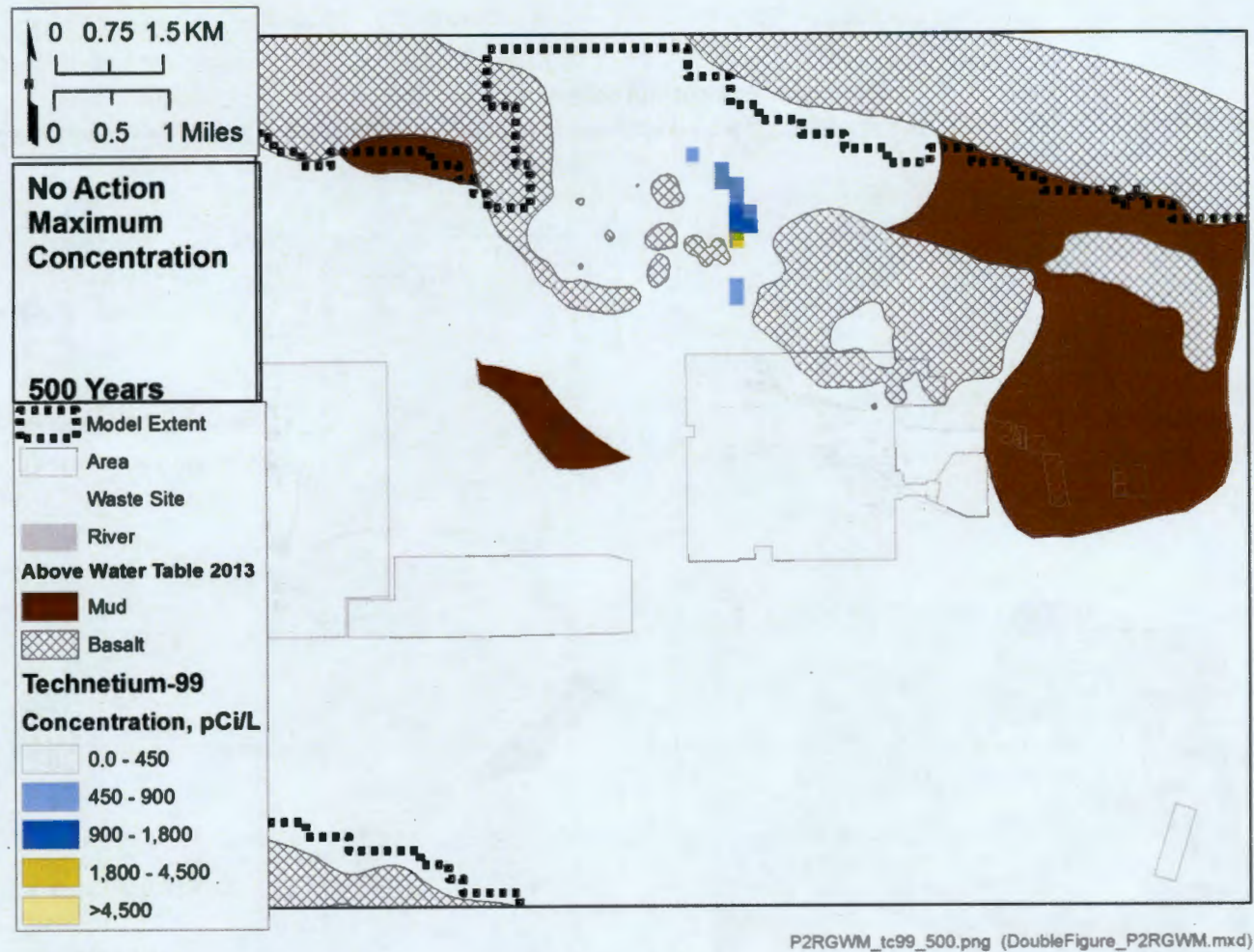
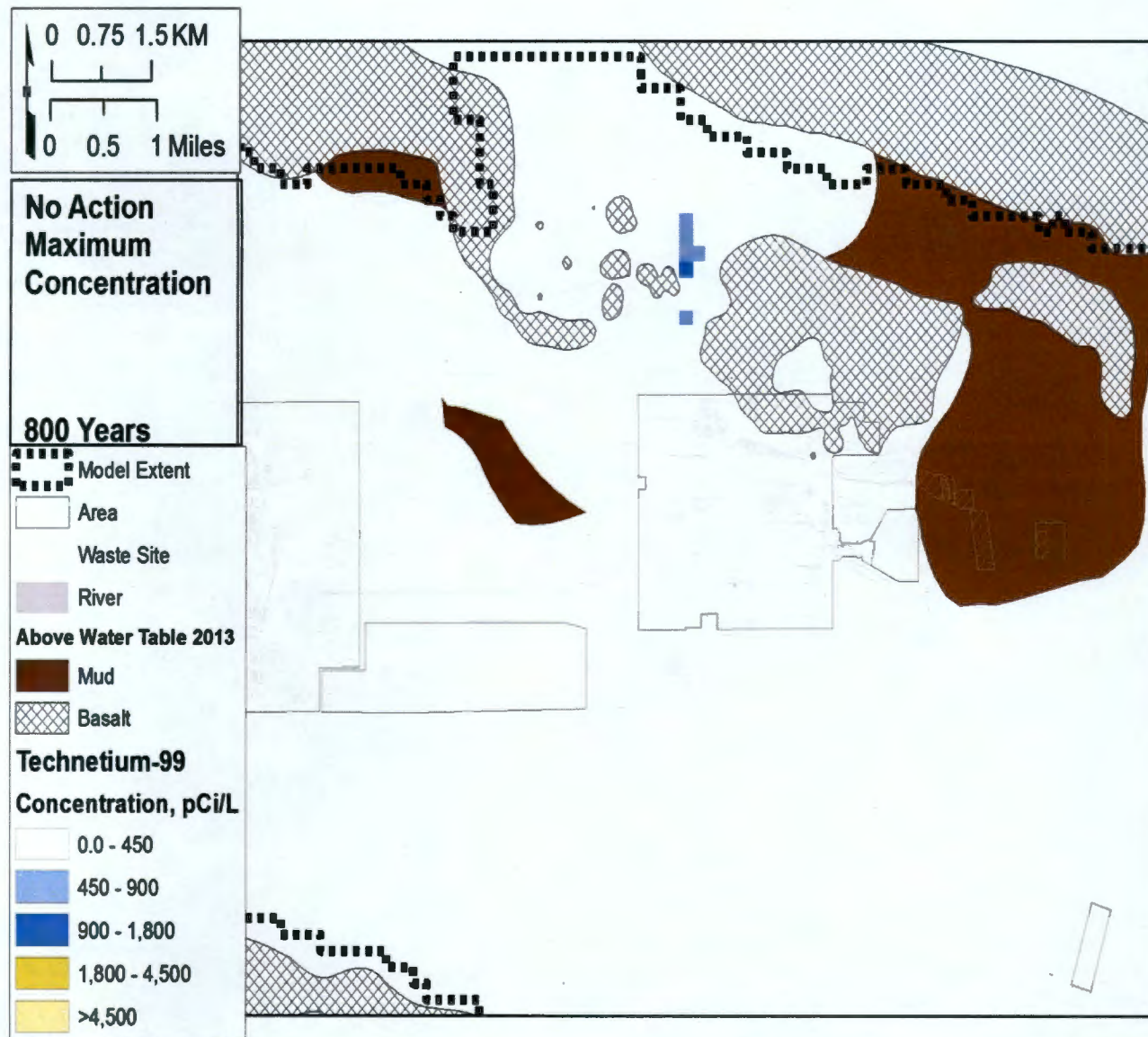
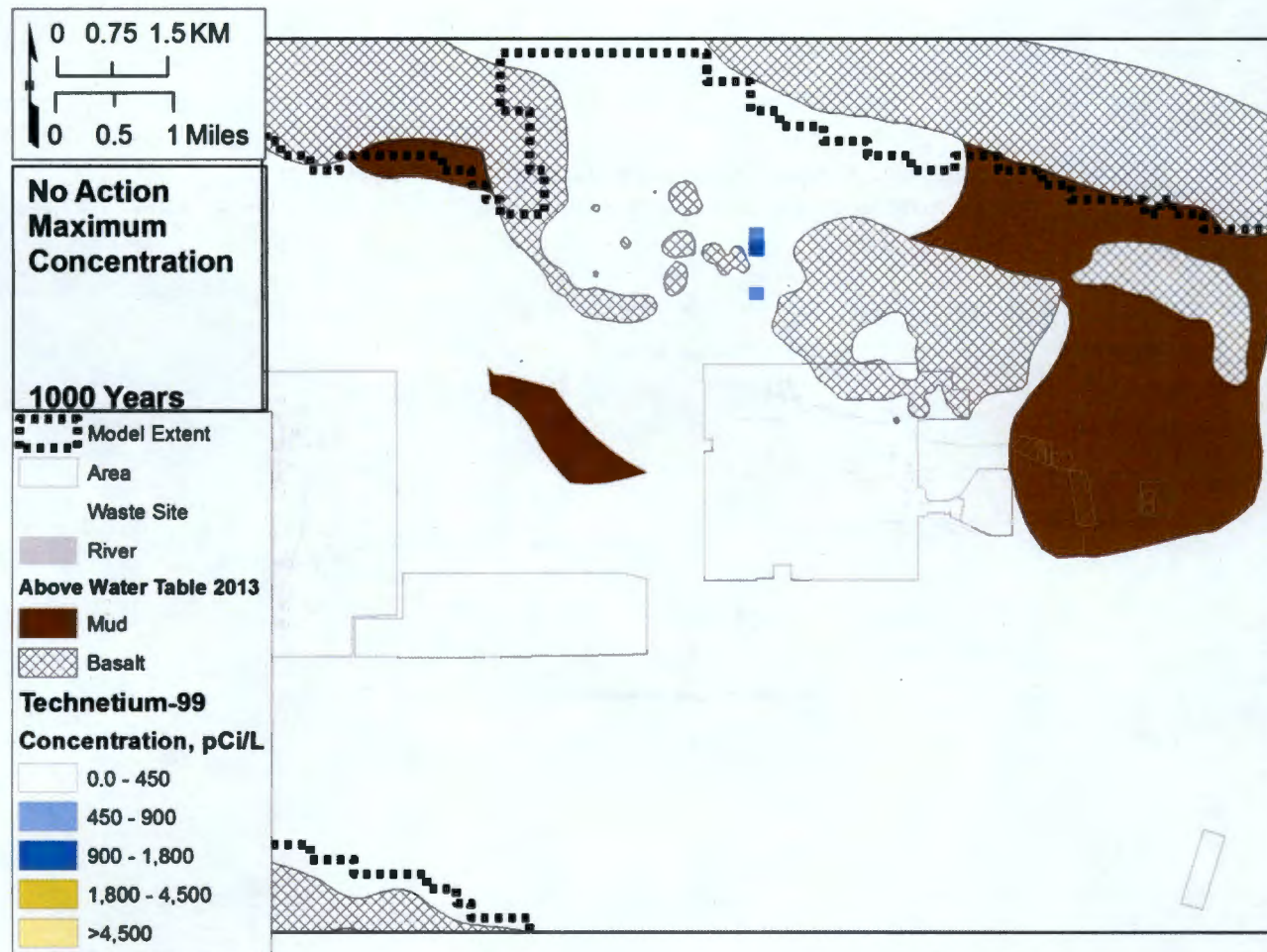


Figure B-136 - Plan view contours of the technetium-99 plume at simulation time 500 years based on the base case simulation using maximum concentration initial conditions



P2RGWM_tc99_800.png (DoubleFigure_P2RGWM.mxd)

Figure B-137 - Plan view contours of the technetium-99 plume at simulation time 800 years based on the base case simulation using maximum concentration initial conditions



P2RGWM_tc99_1000.png (DoubleFigure_P2RGWM.mxd)

Figure B-138 - Plan view contours of the technetium-99 plume at simulation time 1000 years based on the base case simulation using maximum concentration initial conditions

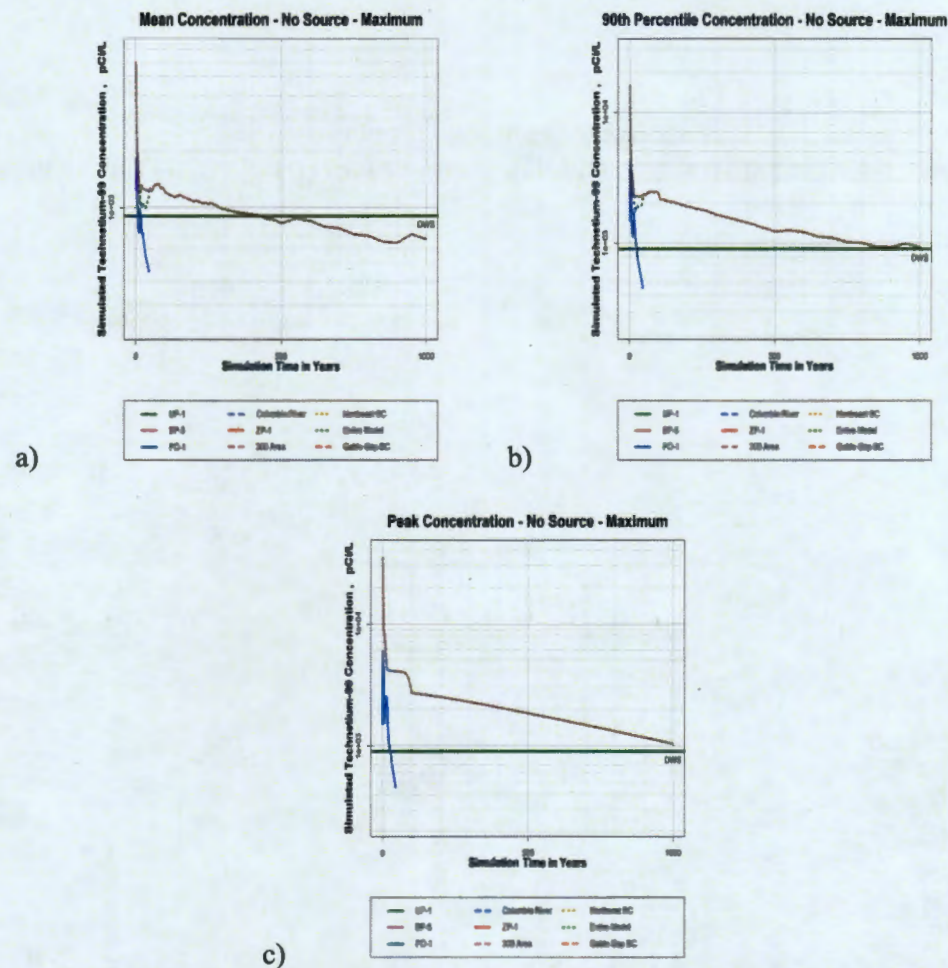


Figure B-139 - Statistical summary of simulated concentration within subregions of the model domain for the technetium-99 plume for the base case simulation using maximum concentration initial conditions.

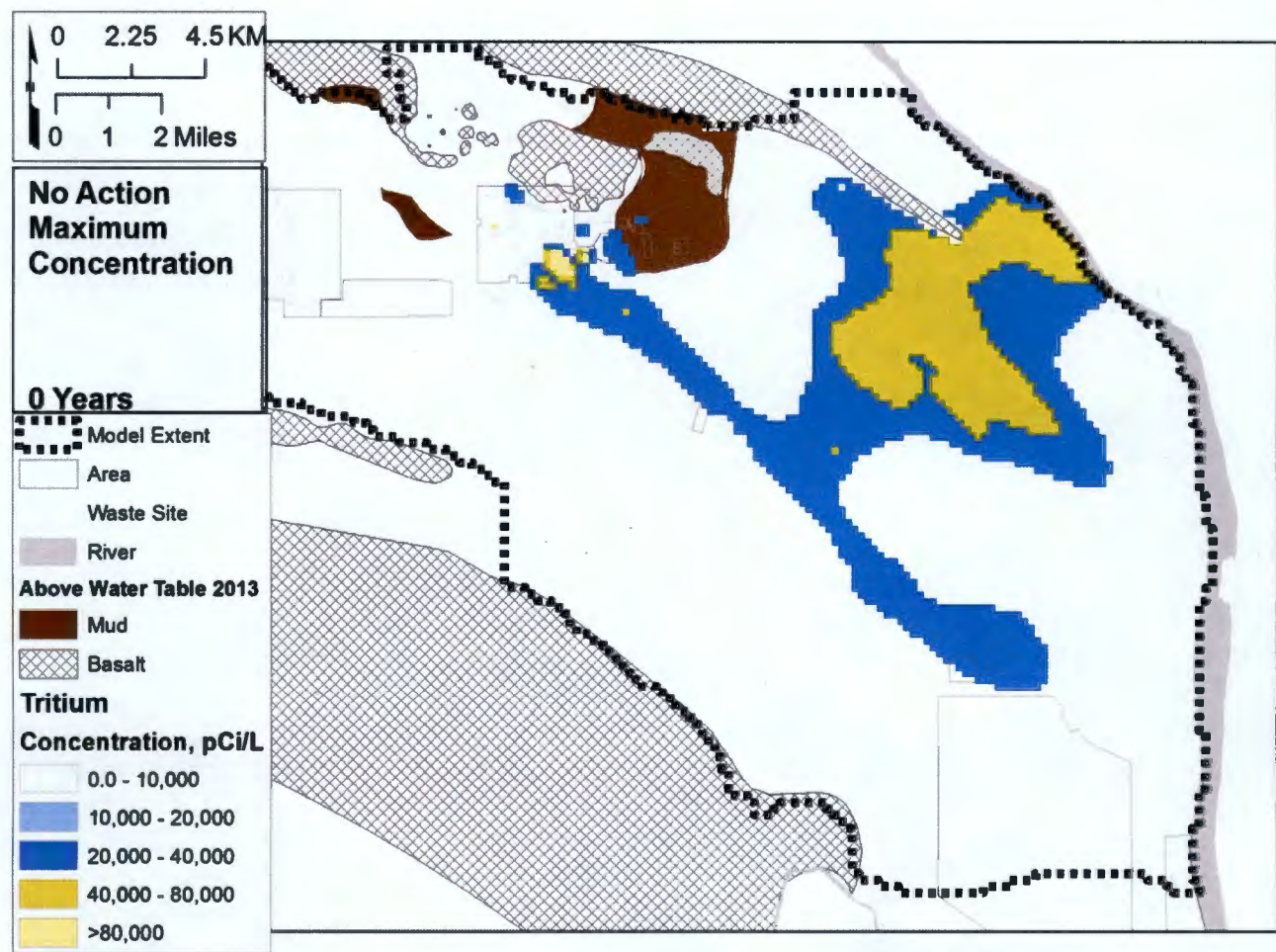
Table 14 - Summary of simulated concentrations (pCi/L) at selected well locations within the model domain for the technetium-99 base case simulation using the maximum concentration condition.

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
699-42-42B	200-PO-1	0.0	246.2	185.5	164.0	140.3	115.5	92.2	75.6	54.9	16.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-44	200-PO-1	0.0	146.5	141.0	136.3	119.4	100.9	83.5	70.9	54.6	21.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	62.6	280.9	227.5	177.9	138.8	108.1	84.0	68.6	50.7	18.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-1	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-14	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-22	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-23	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-25	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-16	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-23	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-19	200-PO-1	180.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-20	200-PO-1	178.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-3	200-PO-1	109.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-36	200-PO-1	16.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-37-47A	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-20	200-PO-1	423.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-34	200-PO-1	587.0	46.7	44.4	41.3	38.2	35.1	32.1	29.9	26.8	18.2	12.2	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-93	200-PO-1	756.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-4	200-PO-1	3504.9	44.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	62.6	280.9	227.5	177.9	138.8	108.1	84.0	68.6	50.7	18.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CMAx	200-PO-1	5839.0	925.7	408.3	217.3	177.7	137.5	123.2	110.1	96.0	66.8	60.7	46.6	39.0	30.0	27.1	25.3	23.5
299-E24-25	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-2	200-BP-5	809.8	62.8	43.1	27.6	17.7	11.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-23	200-BP-5	1688.4	57.2	29.0	22.9	18.4	15.2	12.7	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-24	200-BP-5	1700.1	57.6	28.9	22.9	18.6	15.3	12.8	11.1	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-30	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E29-54	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-16	200-BP-5	18712.2	41.5	44.2	29.8	18.8	16.9	16.1	15.8	15.7	14.5	11.3	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-18	200-BP-5	15781.6	26.4	27.3	18.1	11.3	10.0	9.5	9.2	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-1A	200-BP-5	13491.1	50.5	54.1	37.1	23.5	21.3	20.3	19.9	19.9	18.3	14.2	9.9	0.0	0.0	0.0	0.0	0.0
299-E33-2	200-BP-5	12577.4	51.6	55.3	38.0	24.1	21.8	20.8	20.5	20.4	18.7	14.5	10.2	0.0	0.0	0.0	0.0	0.0
299-E33-205	200-BP-5	12279.2	25.8	27.2	18.3	11.5	10.3	9.8	9.6	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-26	200-BP-5	7520.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-3	200-BP-5	12485.3	53.5	57.2	39.3	24.9	22.6	21.5	21.1	21.0	19.3	14.9	10.4	0.0	0.0	0.0	0.0	0.0
299-E33-31	200-BP-5	12722.8	36.1	39.2	26.7	17.0	15.4	14.8	14.6	14.7	13.8	10.7	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-32	200-BP-5	7493.5	12.1	12.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-337	200-BP-5	11651.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-339	200-BP-5	10415.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E33-341	200-BP-5	11086.6	51.0	55.0	38.0	24.1	21.9	20.8	20.5	20.4	18.8	14.5	10.2	0.0	0.0	0.0	0.0	0.0
299-E33-342	200-BP-5	13997.7	48.2	51.8	35.5	22.5	20.4	19.4	19.1	19.1	17.6	13.6	9.6	0.0	0.0	0.0	0.0	0.0
299-E33-343	200-BP-5	14529.4	24.8	25.6	17.0	10.6	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-345	200-BP-5	15906.6	26.9	27.8	18.5	11.5	10.2	9.6	9.4	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-38	200-BP-5	12858.0	47.8	51.5	35.3	22.4	20.3	19.4	19.1	19.1	17.6	13.6	9.6	0.0	0.0	0.0	0.0	0.0
299-E33-4	200-BP-5	11552.1	54.9	58.6	40.4	25.6	23.2	22.1	21.7	21.6	19.8	15.3	10.7	0.0	0.0	0.0	0.0	0.0
299-E33-41	200-BP-5	12903.6	21.4	21.9	14.5	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-42	200-BP-5	10070.6	24.2	26.0	17.7	11.2	10.1	9.7	9.6	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-43	200-BP-5	6363.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-44	200-BP-5	16481.6	41.4	44.5	30.1	19.0	17.2	16.3	16.0	16.0	14.8	11.4	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-47	200-BP-5	17082.7	14.5	13.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-49	200-BP-5	8706.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-5	200-BP-5	12206.5	48.0	51.8	35.6	22.6	20.5	19.6	19.2	19.2	17.7	13.7	9.6	0.0	0.0	0.0	0.0	0.0
299-E33-7	200-BP-5	10454.9	54.3	58.5	40.4	25.7	23.3	22.1	21.8	21.7	19.8	15.3	10.7	0.0	0.0	0.0	0.0	0.0
299-E33-9	200-BP-5	15578.7	41.9	45.1	30.7	19.4	17.6	16.8	16.5	16.5	15.3	11.9	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-49-57A	200-BP-5	915.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-50-56	200-BP-5	646.9	343.8	289.8	240.6	204.1	175.6	153.0	138.1	119.8	80.2	57.0	41.4	30.2	22.0	15.9	11.5	0.0
699-50-59	200-BP-5	0.0	17.1	22.4	15.5	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-55C	200-BP-5	3035.2	1924.4	1711.1	1559.2	1422.9	1297.4	1182.6	1098.2	983.2	684.6	483.5	346.7	252.0	185.3	137.8	103.4	78.2
699-55-57	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-57-59	200-BP-5	0.0	129.7	131.1	122.1	110.0	106.2	98.0	89.7	76.3	38.2	17.1	0.0	0.0	0.0	0.0	0.0	0.0
699-60-60	200-BP-5	0.0	0.0	0.0	0.0	13.5	18.9	23.7	26.8	29.6	26.8	17.2	9.4	0.0	0.0	0.0	0.0	0.0
699-61-62	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-47B	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-48A	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-54-49	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-27	200-BP-5	791.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-10	200-BP-5	3846.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-6	200-BP-5	299.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-7	200-BP-5	662.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-9	200-BP-5	2393.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-29	200-BP-5	3078.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-34	200-BP-5	5338.4	10.9	10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-35	200-BP-5	6258.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-10	200-BP-5	84.2	32.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-12	200-BP-5	7293.0	10.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-9	200-BP-5	9338.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-13	200-BP-5	6426.5	58.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E27-14	200-BP-5	8391.2	65.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-155	200-BP-5	3695.4	37.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-21	200-BP-5	6598.3	37.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-22	200-BP-5	671.4	37.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-23	200-BP-5	6041.8	48.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-24	200-BP-5	7542.6	46.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-4	200-BP-5	5372.0	58.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



P2RGWM_trit_0.png (DoubleFigure_P2RGWM.mxd)

Figure B-140 - Plan view contours of the tritium plume at simulation time 0 years based on the base case simulation using maximum concentration initial conditions

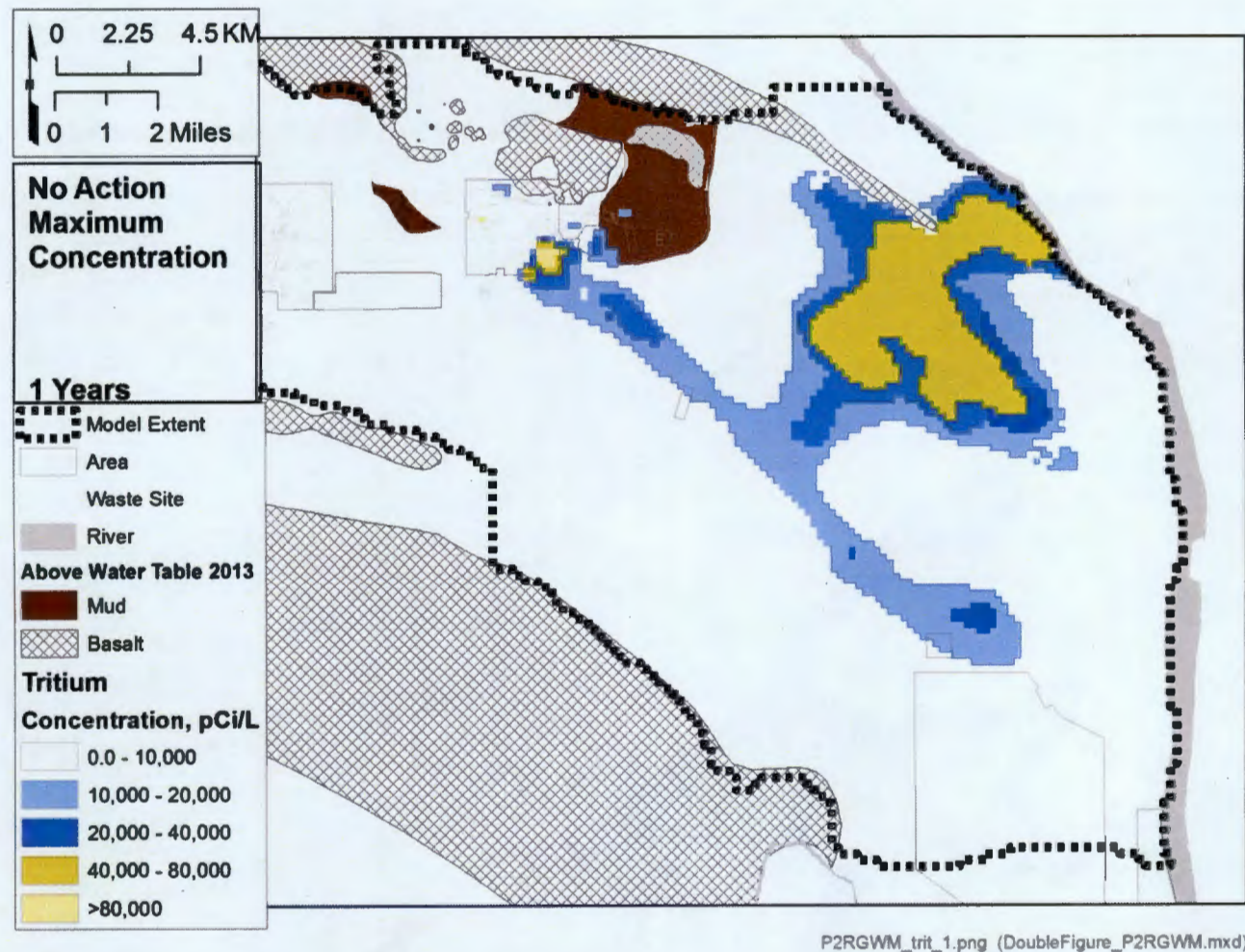


Figure B-141 - Plan view contours of the tritium plume at simulation time 1 years based on the base case simulation using maximum concentration initial conditions

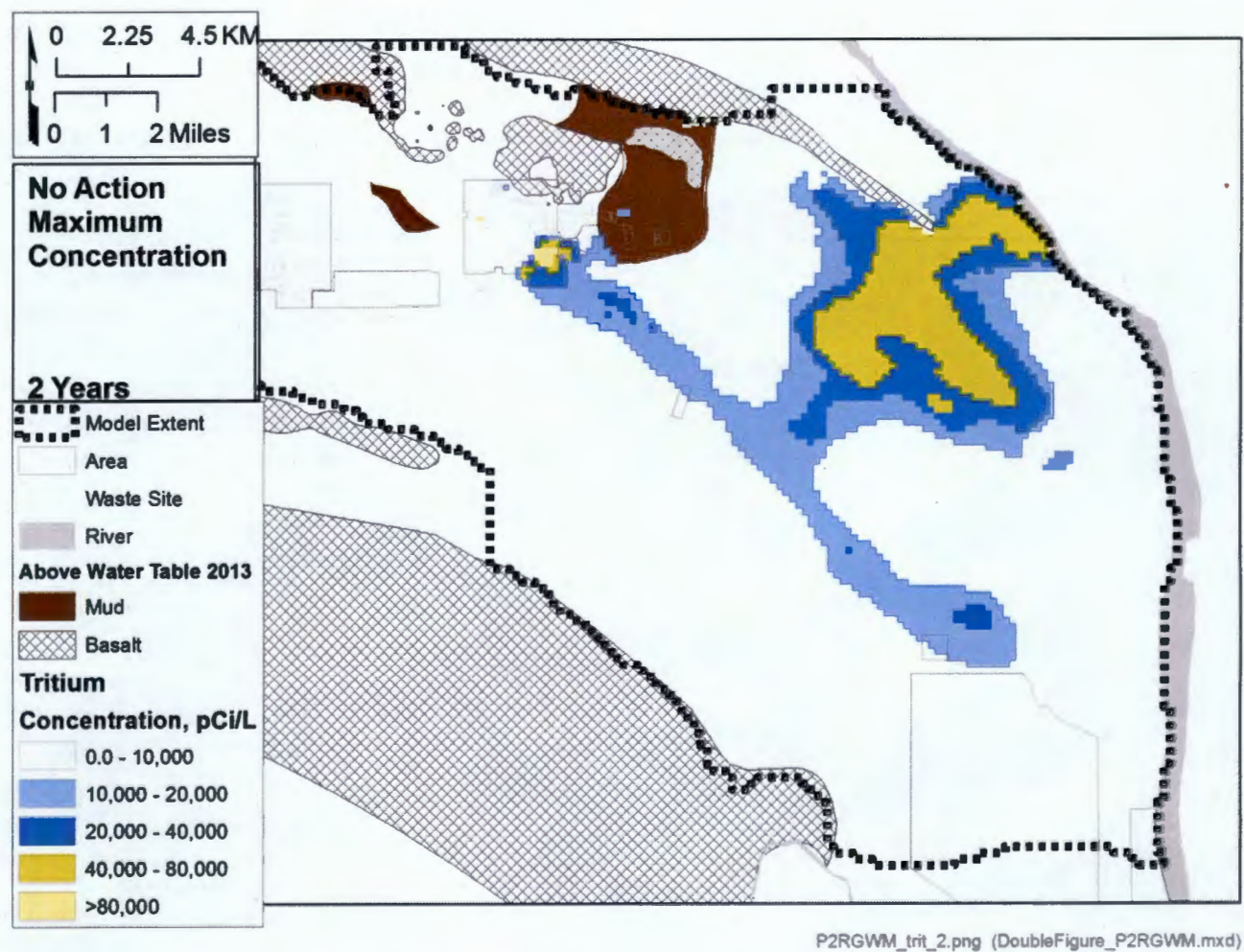


Figure B-142 - Plan view contours of the tritium plume at simulation time 2 years based on the base case simulation using maximum concentration initial conditions

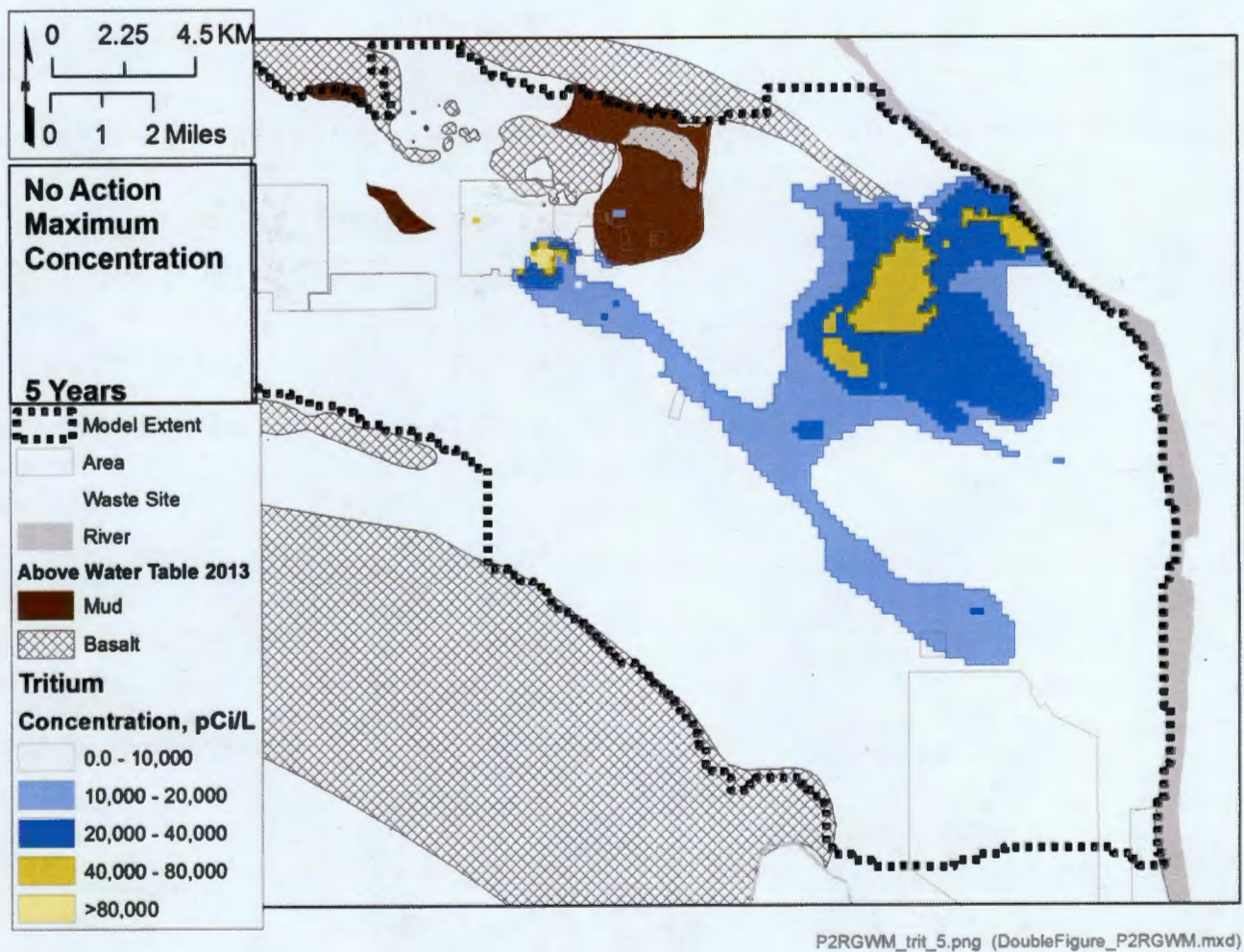


Figure B-143 - Plan view contours of the tritium plume at simulation time 5 years based on the base case simulation using maximum concentration initial conditions

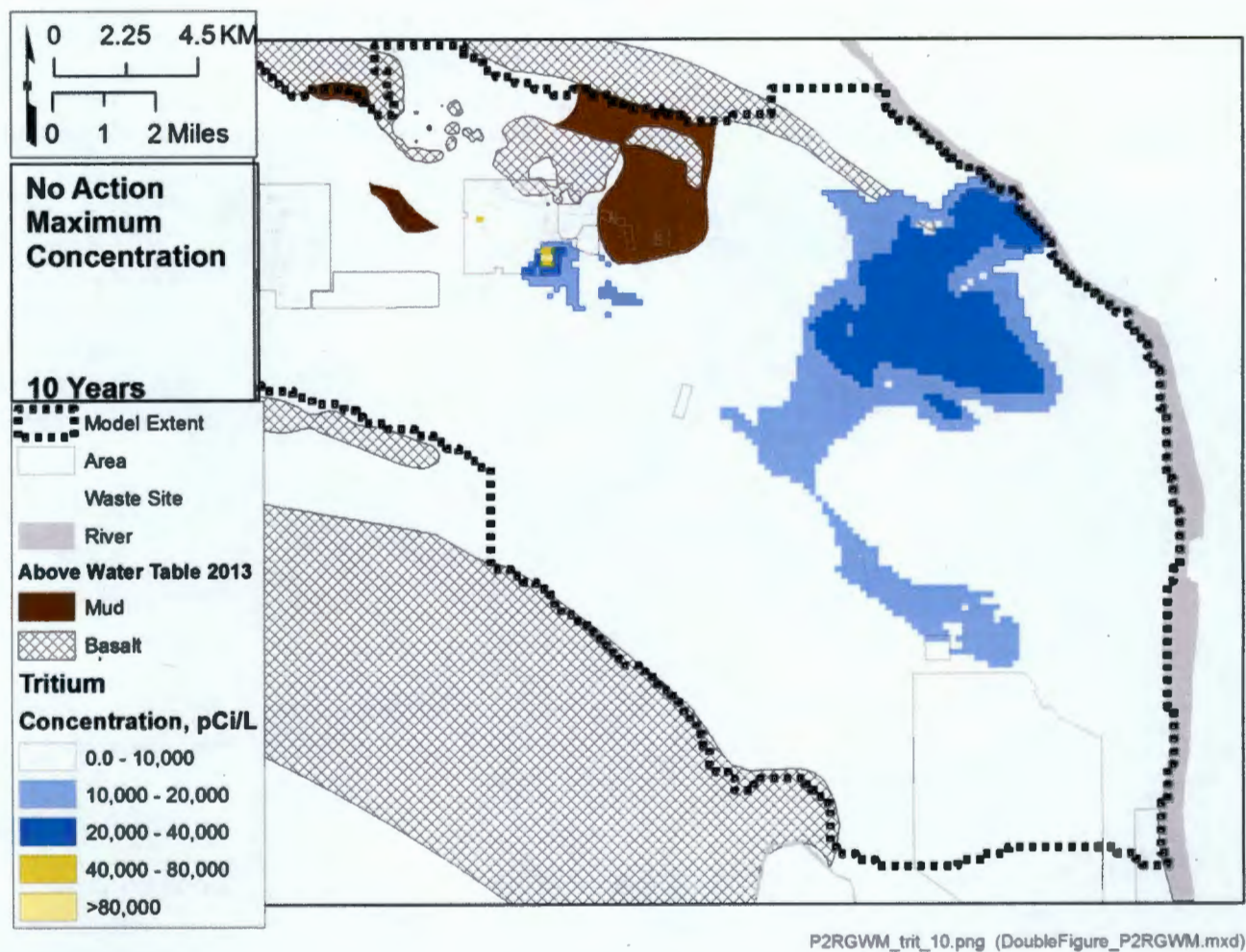
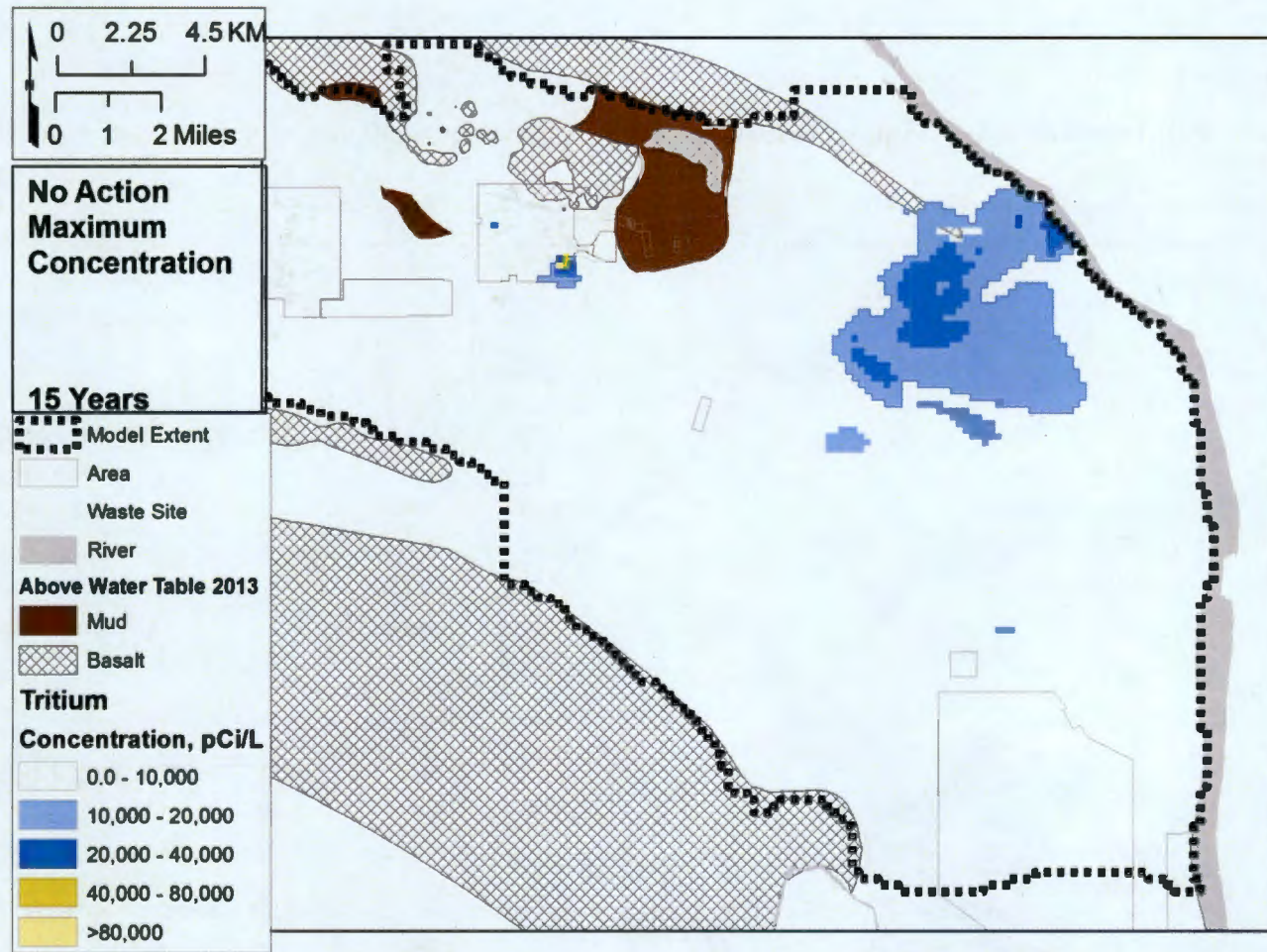
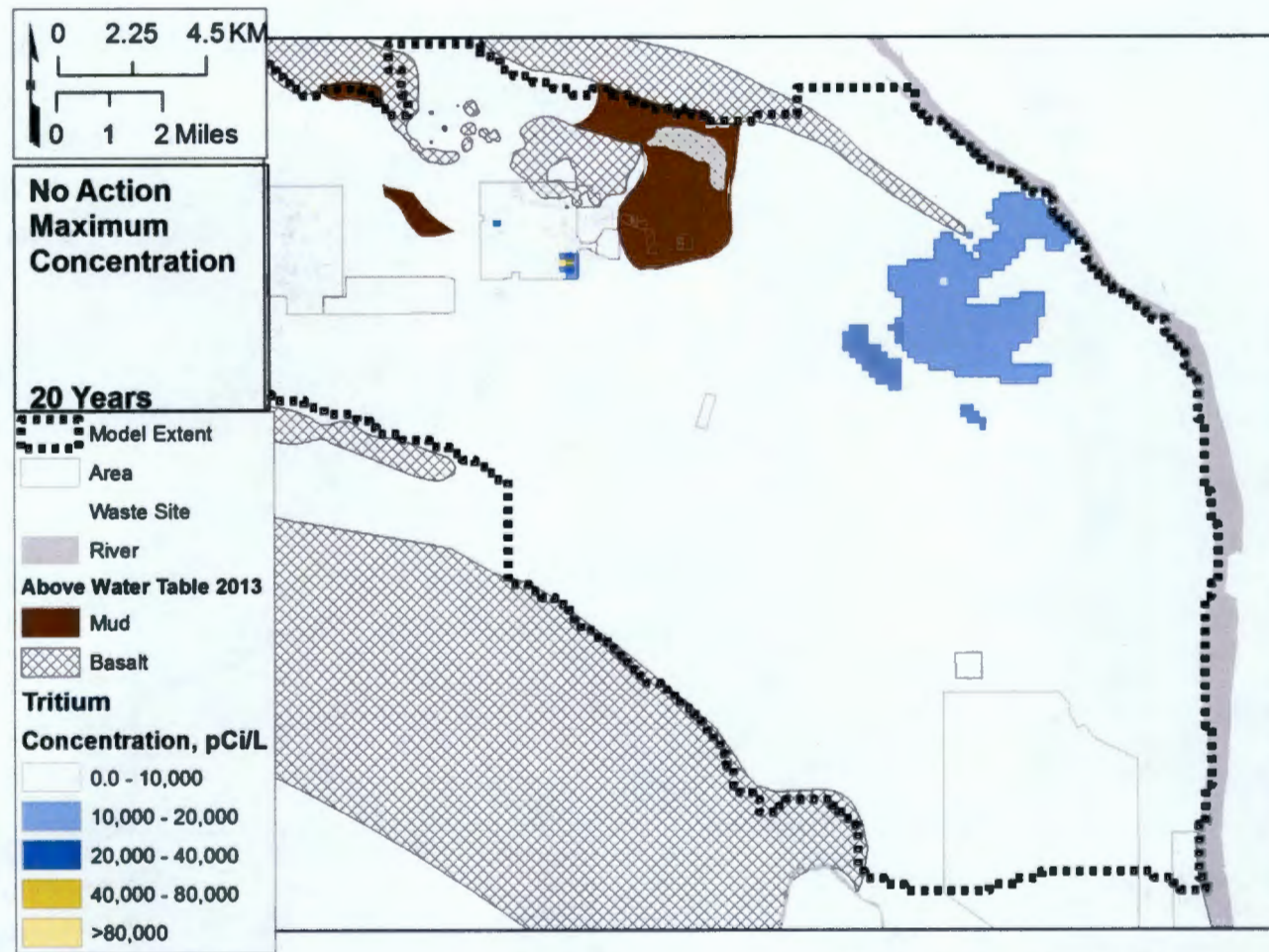


Figure B-144 - Plan view contours of the tritium plume at simulation time 10 years based on the base case simulation using maximum concentration initial conditions



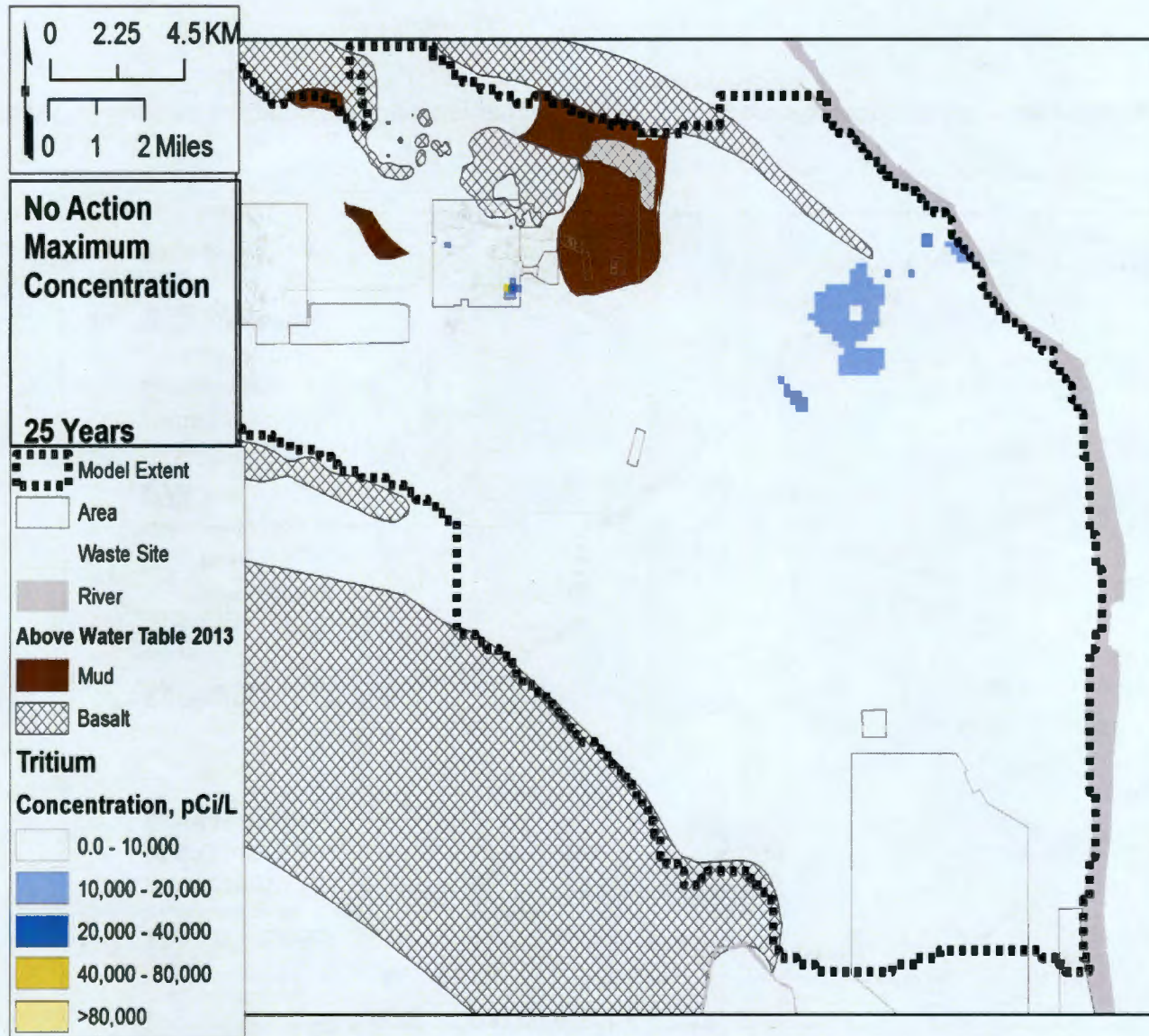
P2RGWM_trit_15.png (DoubleFigure_P2RGWM.mxd)

Figure B-145 - Plan view contours of the tritium plume at simulation time 15 years based on the base case simulation using maximum concentration initial conditions



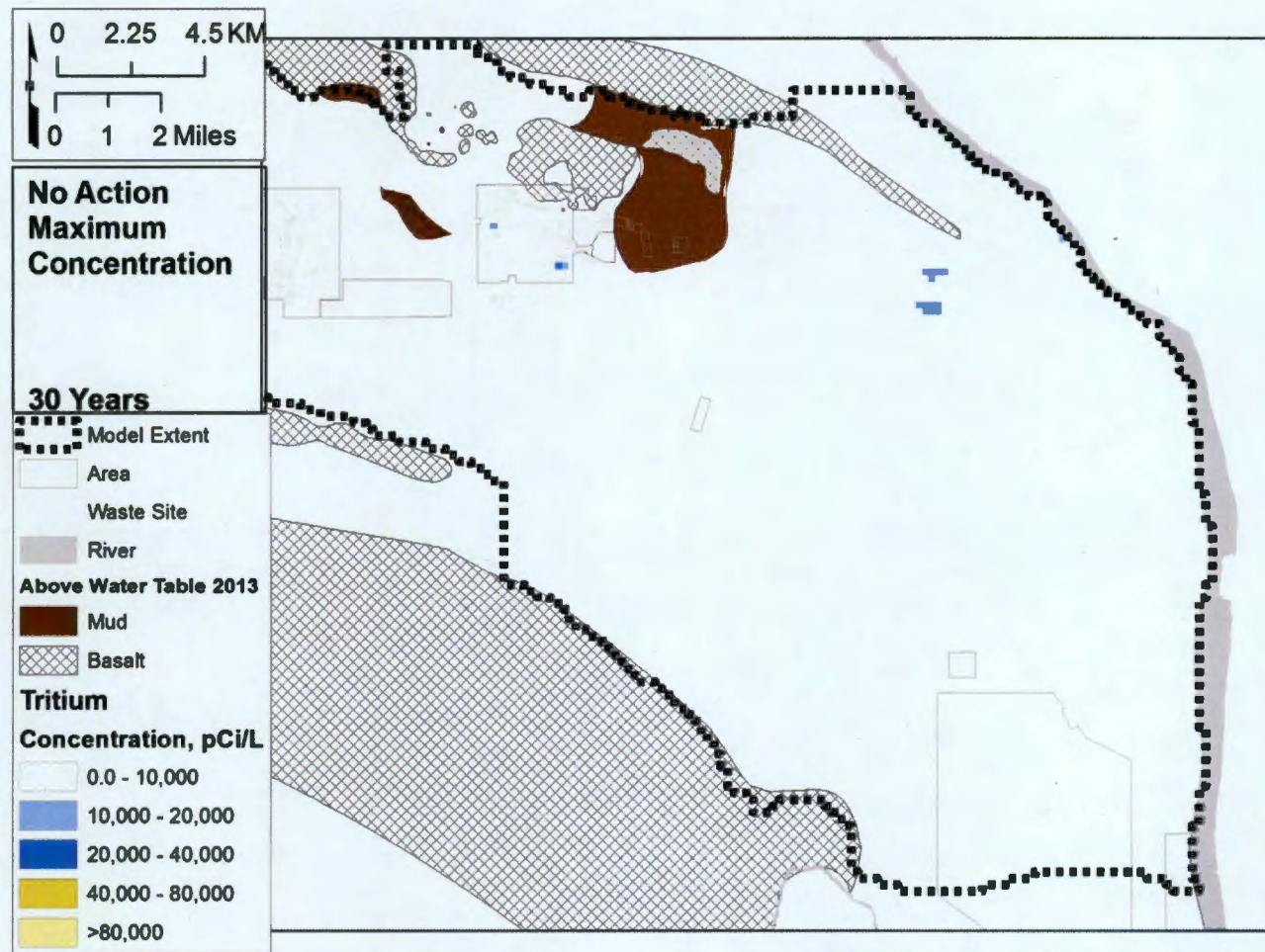
P2RGWM_trit_20.png (DoubleFigure_P2RGWM.mxd)

Figure B-146 - Plan view contours of the tritium plume at simulation time 20 years based on the base case simulation using maximum concentration initial conditions



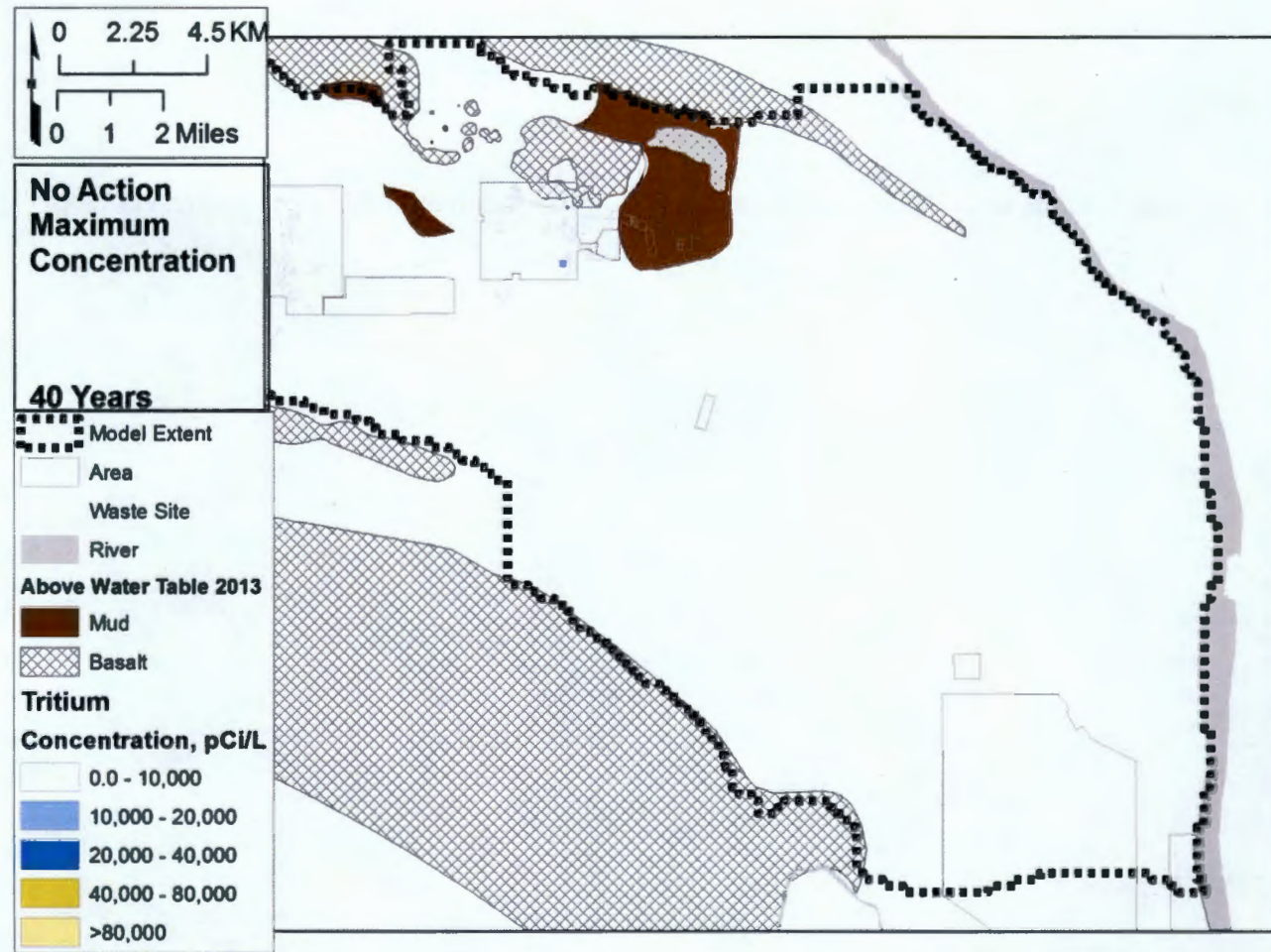
P2RGWM_trit_25.png (DoubleFigure_P2RGWM.mxd)

Figure B-147 - Plan view contours of the tritium plume at simulation time 25 years based on the base case simulation using maximum concentration initial conditions



P2RGWM_trit_30.png (DoubleFigure_P2RGWM.mxd)

Figure B-148 - Plan view contours of the tritium plume at simulation time 30 years based on the base case simulation using maximum concentration initial conditions



P2RGWM_trit_40.png (DoubleFigure_P2RGWM.mxd)

Figure B-149 - Plan view contours of the tritium plume at simulation time 40 years based on the base case simulation using maximum concentration initial conditions

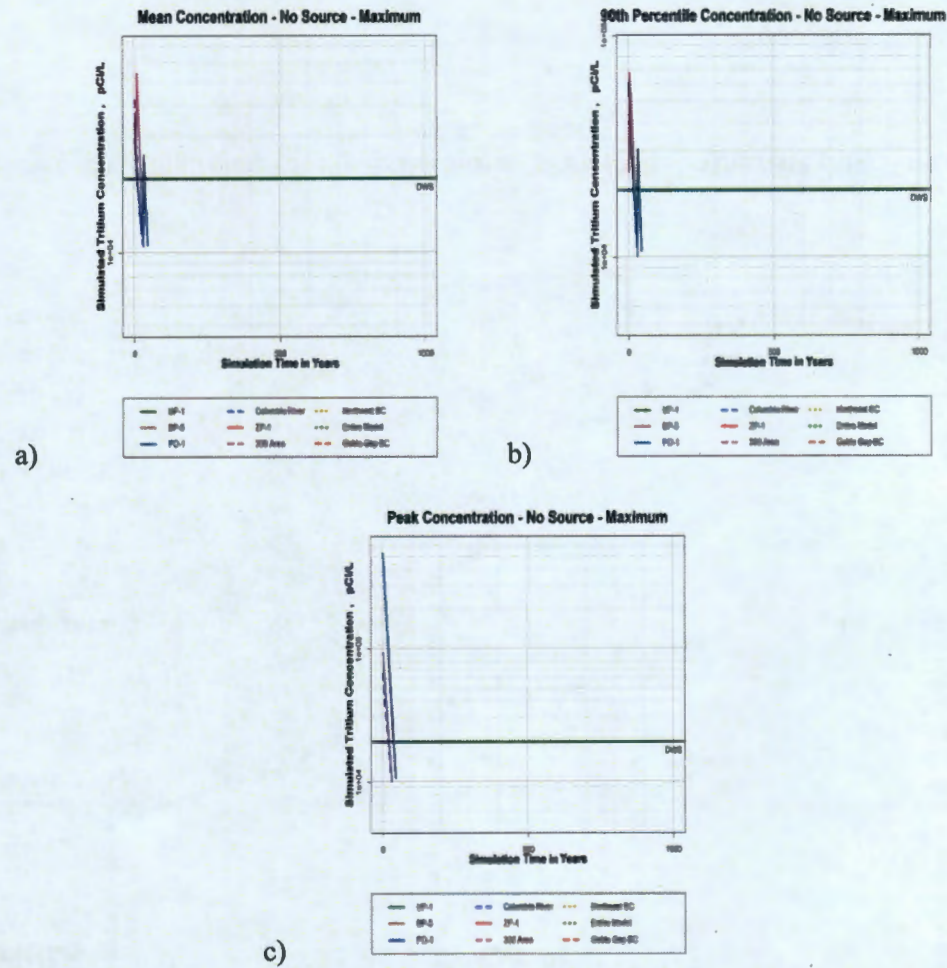


Figure B-150 - Statistical summary of simulated concentration within subregions of the model domain for the tritium plume for the base case simulation using maximum concentration initial conditions.

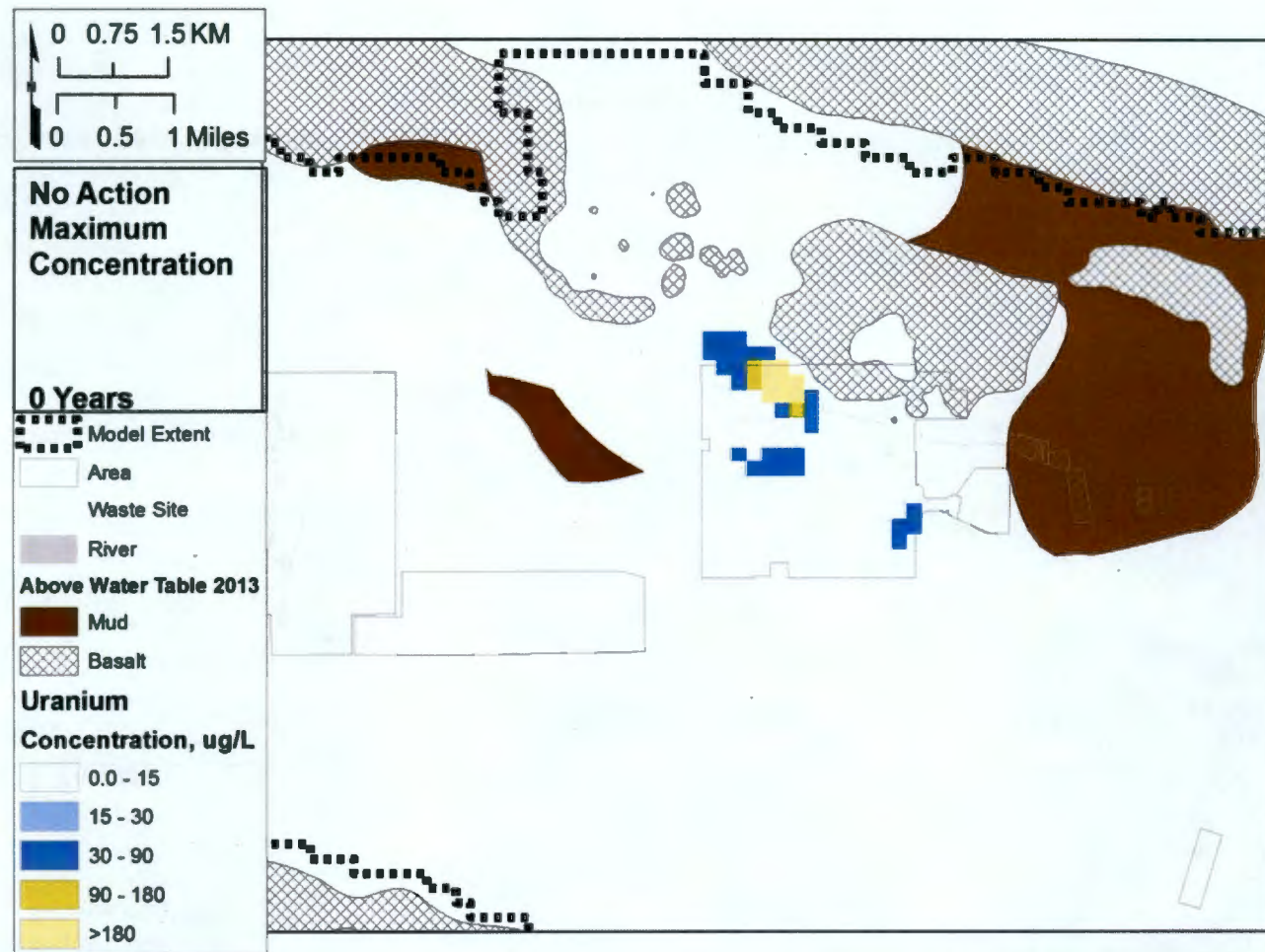
Table 15 - Summary of simulated concentrations (pCi/L) at selected well locations within the model domain for the tritium base case simulation using the maximum concentration condition.

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
699-42-42B	200-PO-1	938.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-44	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	2070.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-1	200-PO-1	263548.2	13706.4	1654.2	249.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-14	200-PO-1	426001.7	43458.1	5243.6	812.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-22	200-PO-1	155802.8	3040.6	350.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-23	200-PO-1	48789.1	3791.4	315.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-25	200-PO-1	52812.0	4172.5	241.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-16	200-PO-1	268524.4	7741.1	895.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-23	200-PO-1	231349.2	8325.6	913.9	204.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-19	200-PO-1	22109.4	979.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-20	200-PO-1	20630.1	931.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-3	200-PO-1	43558.0	1594.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-36	200-PO-1	152382.0	7172.0	818.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-37-47A	200-PO-1	54489.7	6789.5	1090.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-20	200-PO-1	5958.0	203.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-34	200-PO-1	6745.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-93	200-PO-1	4092.2	245.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-4	200-PO-1	6156.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	2070.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CMAX	200-PO-1	495892.2	53914.2	6616.2	1004.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-25	200-BP-5	212.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-2	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-23	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-24	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-30	200-BP-5	52196.0	8993.5	1680.3	336.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E29-54	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-16	200-BP-5	14678.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-18	200-BP-5	10994.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-1A	200-BP-5	9179.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-2	200-BP-5	7926.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-205	200-BP-5	8689.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-26	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-3	200-BP-5	7199.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-31	200-BP-5	12364.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-32	200-BP-5	4043.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-337	200-BP-5	6315.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-339	200-BP-5	4969.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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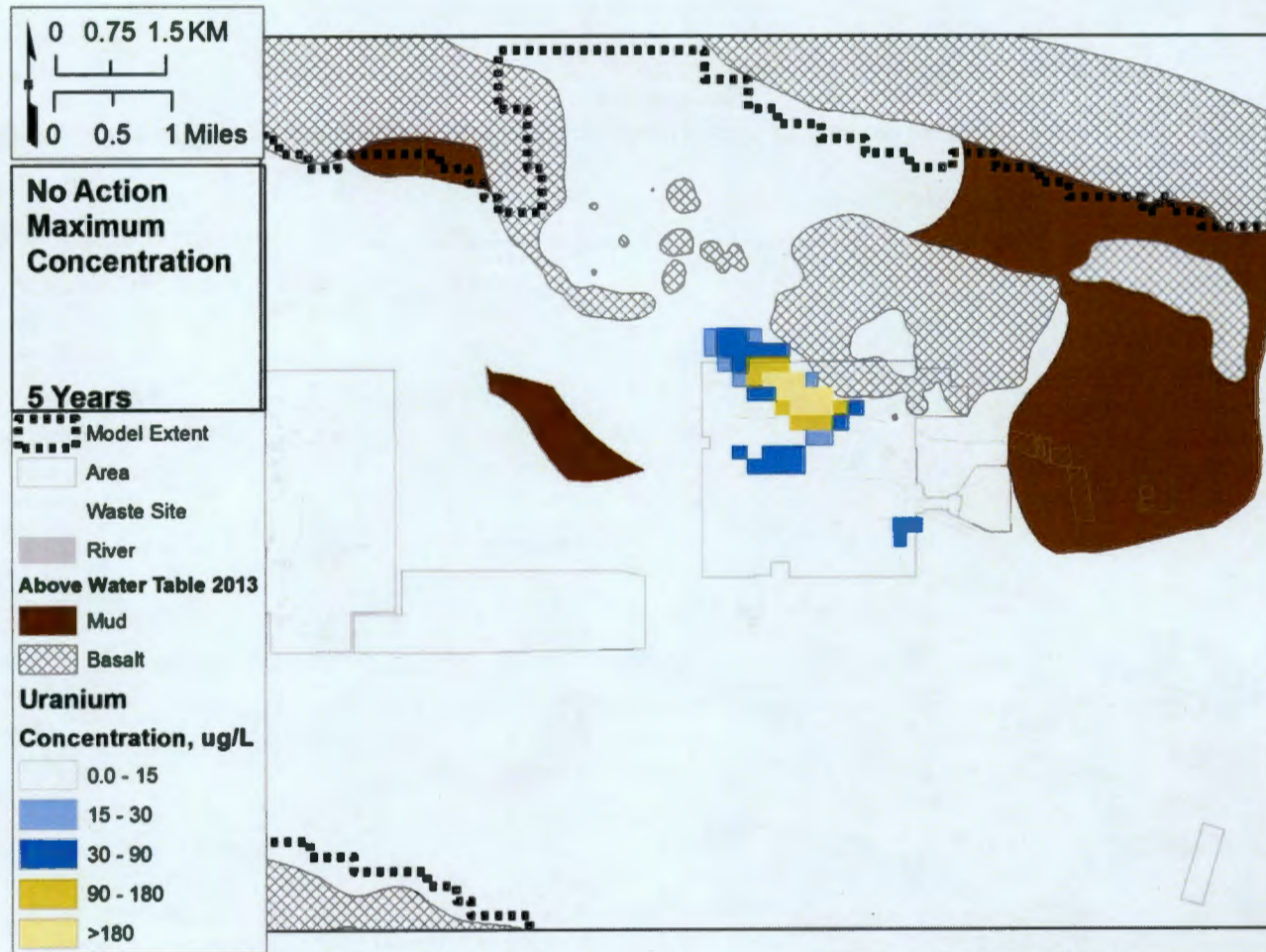
Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E33-341	200-BP-5	6747.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-342	200-BP-5	10415.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-343	200-BP-5	9789.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-345	200-BP-5	11137.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-38	200-BP-5	9467.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-4	200-BP-5	5893.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-41	200-BP-5	8129.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-42	200-BP-5	8256.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-43	200-BP-5	2279.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-44	200-BP-5	12694.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-47	200-BP-5	11103.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-49	200-BP-5	3490.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-5	200-BP-5	8783.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-7	200-BP-5	5073.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-9	200-BP-5	12921.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-49-57A	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-50-56	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-50-59	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-55C	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-55-57	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-57-59	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-60-60	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-61-62	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-47B	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-48A	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-54-49	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-27	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-6	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-7	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-9	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-29	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-34	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-35	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-12	200-BP-5	1943.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-9	200-BP-5	3367.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-13	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E27-14	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-155	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-21	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-22	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-23	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-24	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-4	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



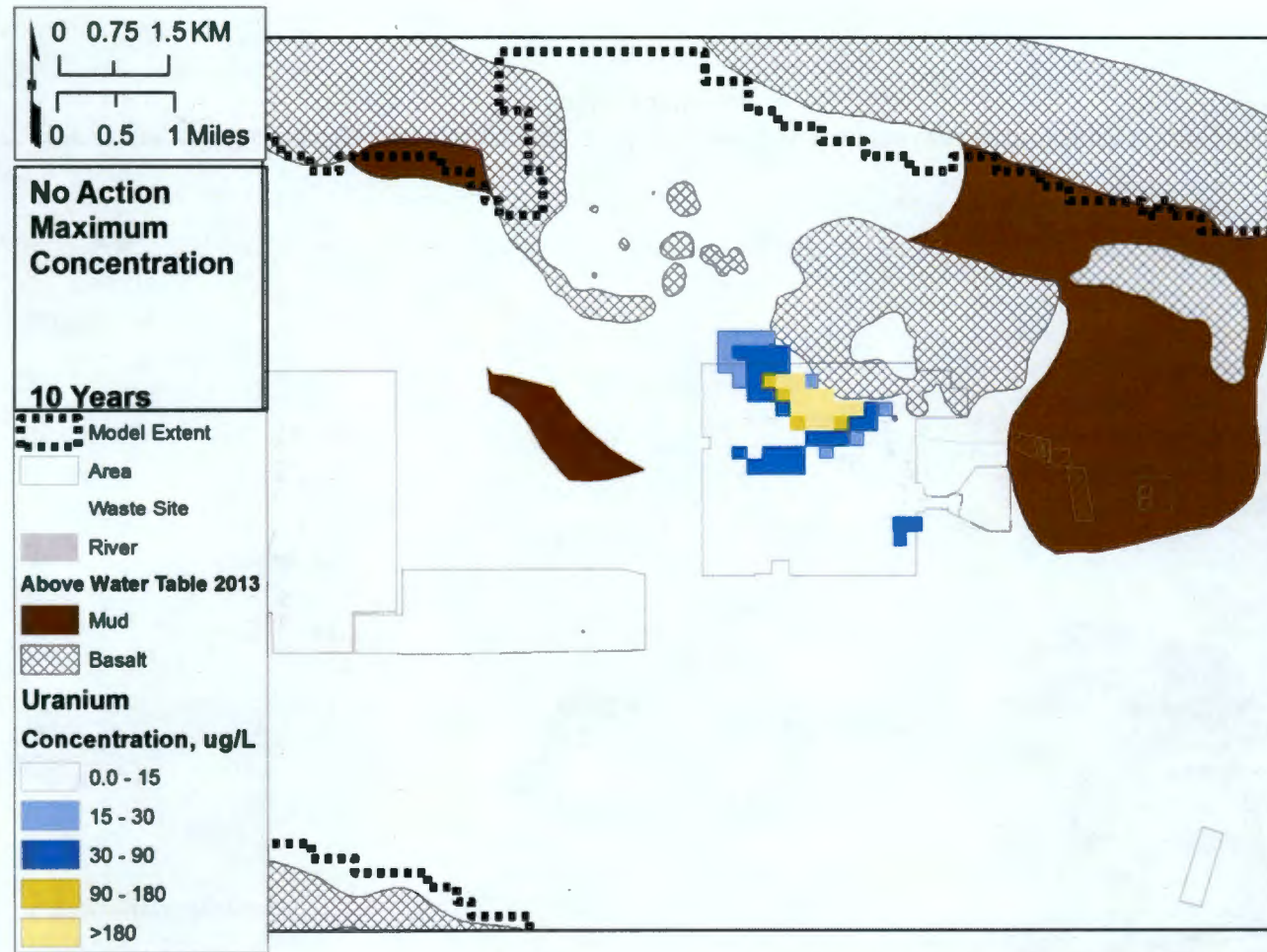
P2RGWM_u238_0.png (DoubleFigure_P2RGWM.mxd)

Figure B-151 - Plan view contours of the uranium plume at simulation time 0 years based on the base case simulation using maximum concentration initial conditions



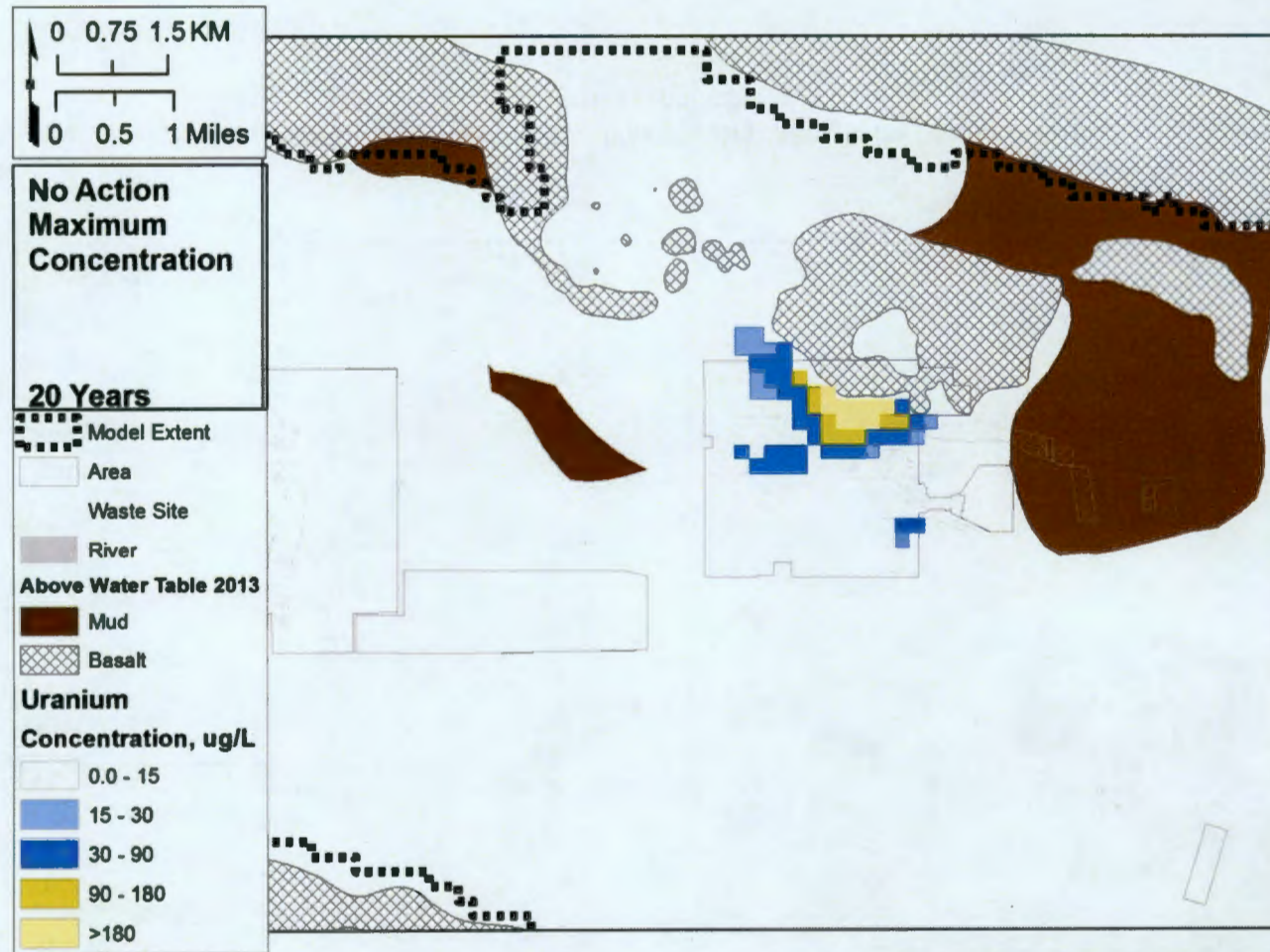
P2RGWM_u238_5.png (DoubleFigure_P2RGWM.mxd)

Figure B-152 - Plan view contours of the uranium plume at simulation time 5 years based on the base case simulation using maximum concentration initial conditions



P2RGWM_u238_10.png (DoubleFigure_P2RGWM.mxd)

Figure B-153 - Plan view contours of the uranium plume at simulation time 10 years based on the base case simulation using maximum concentration initial conditions



P2RGWM_u238_20.png (DoubleFigure_P2RGWM.mxd)

Figure B-154 - Plan view contours of the uranium plume at simulation time 20 years based on the base case simulation using maximum concentration initial conditions

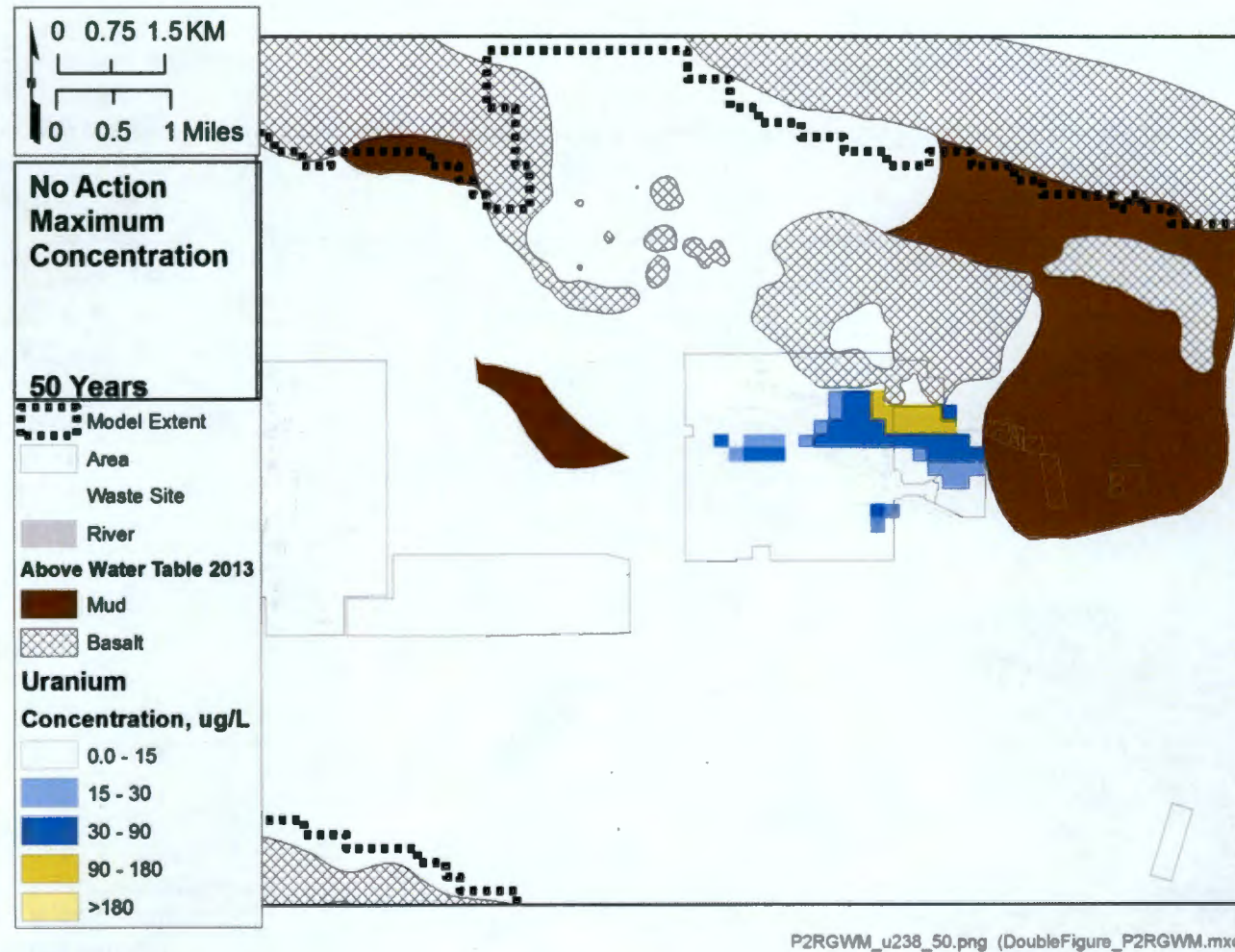
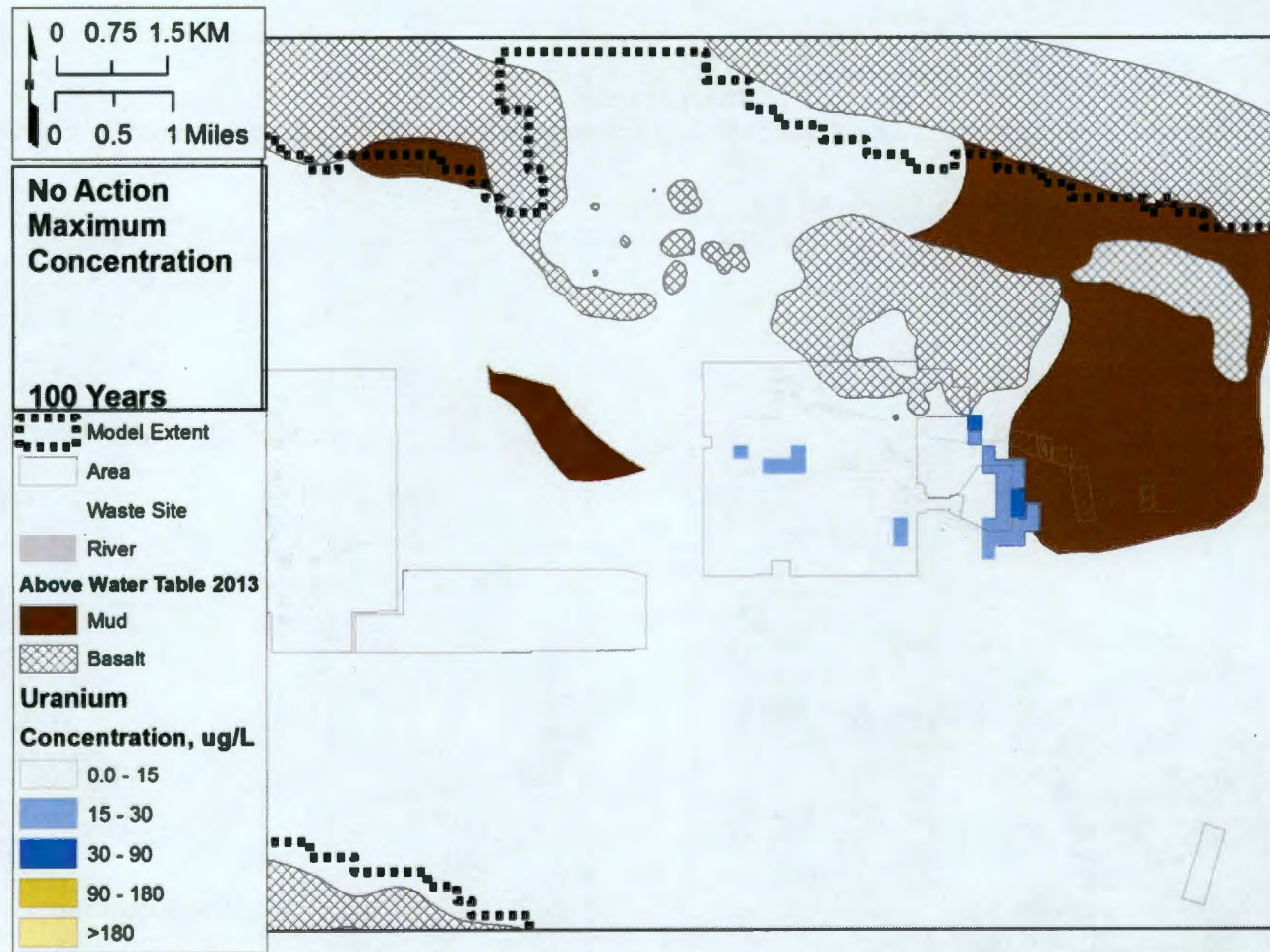


Figure B-155 - Plan view contours of the uranium plume at simulation time 50 years based on the base case simulation using maximum concentration initial conditions



P2RGWM_u238_100.png (DoubleFigure_P2RGWM.mxd)

Figure B-156 - Plan view contours of the uranium plume at simulation time 100 years based on the base case simulation using maximum concentration initial conditions

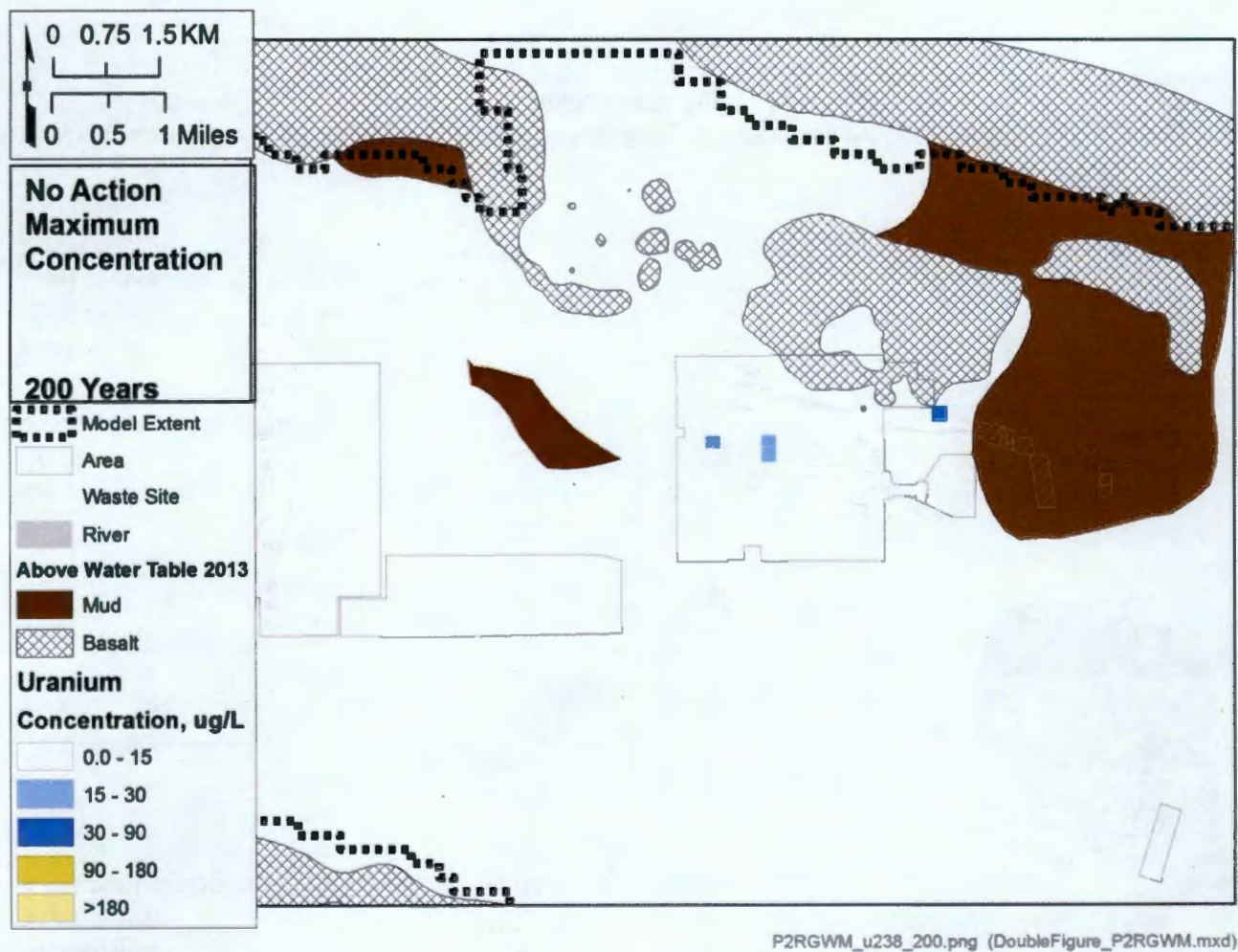


Figure B-157 - Plan view contours of the uranium plume at simulation time 200 years based on the base case simulation using maximum concentration initial conditions

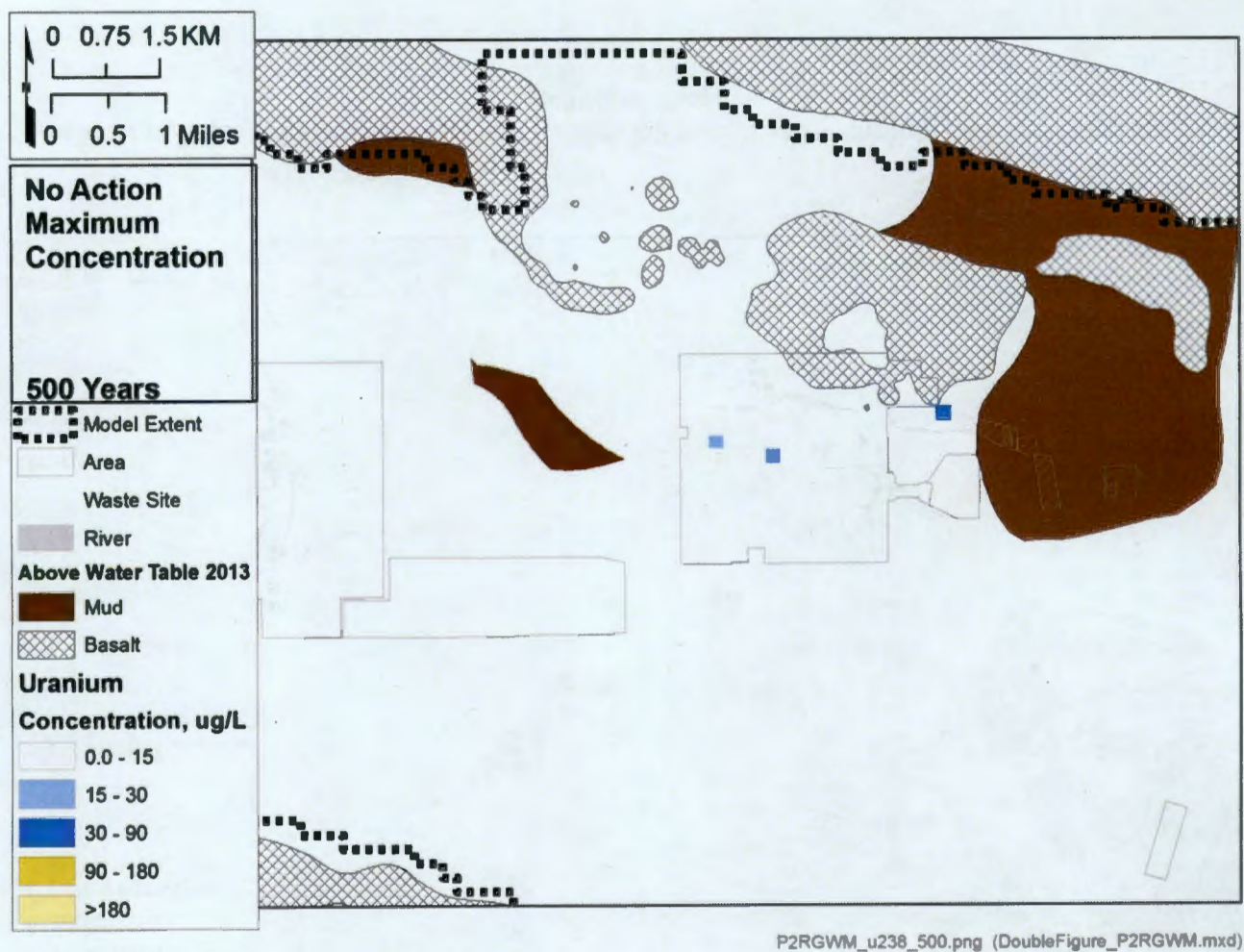


Figure B-158 - Plan view contours of the uranium plume at simulation time 500 years based on the base case simulation using maximum concentration initial conditions

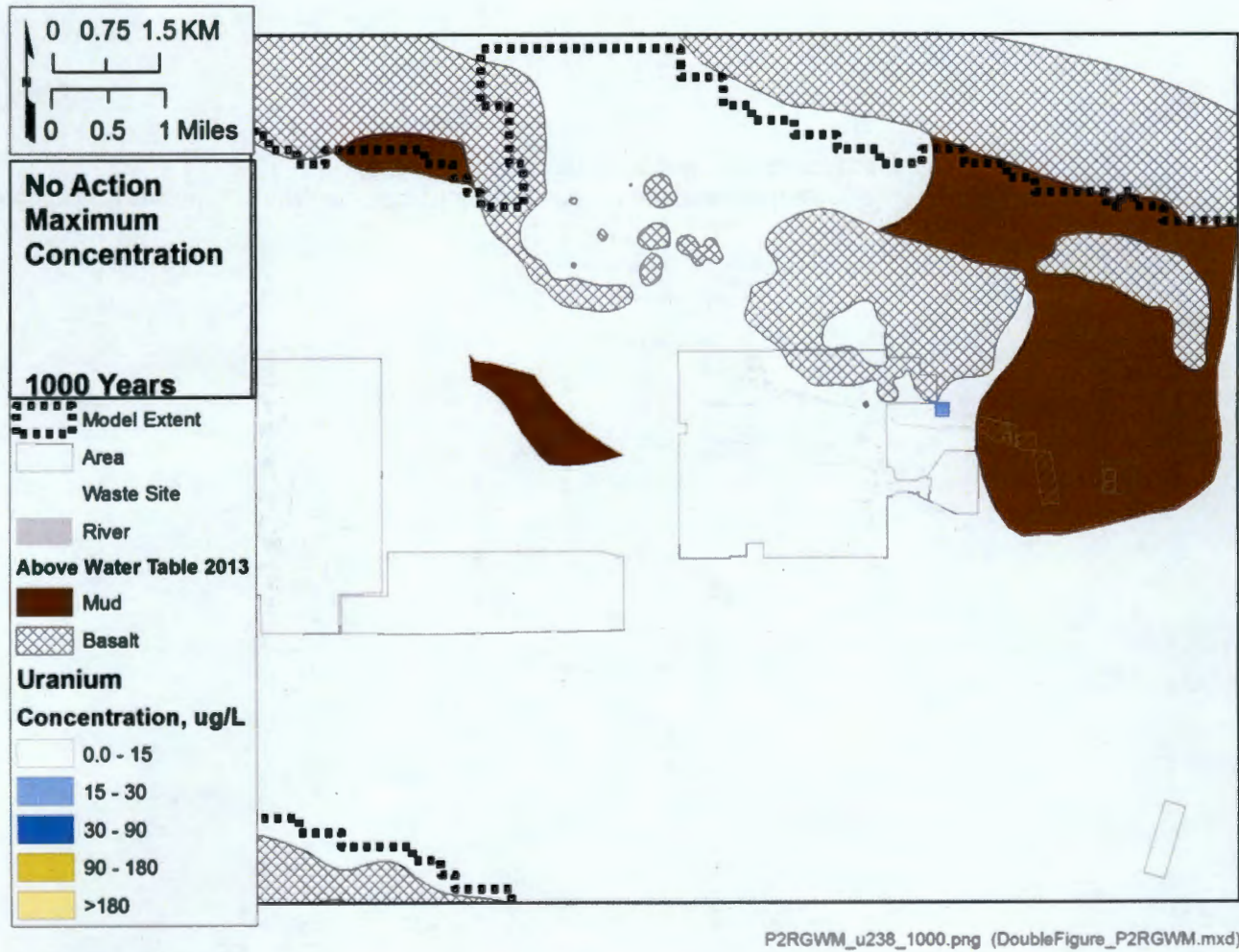


Figure B-159 - Plan view contours of the uranium plume at simulation time 1000 years based on the base case simulation using maximum concentration initial conditions

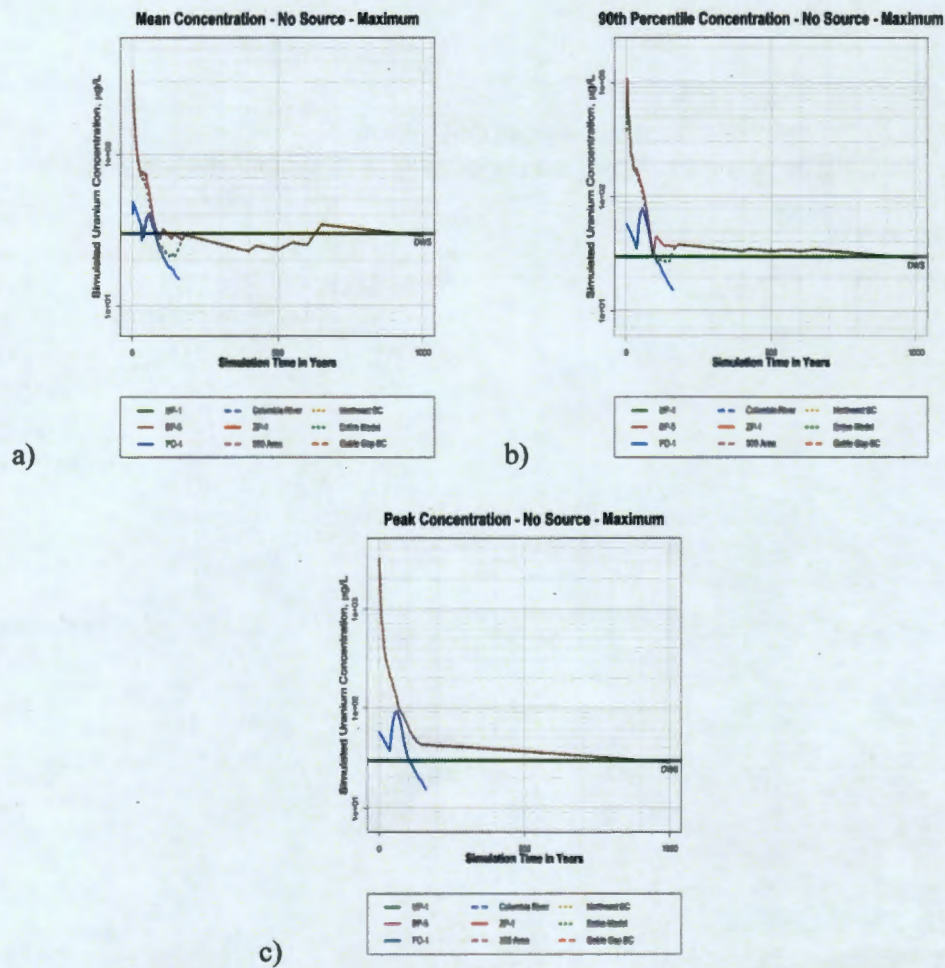


Figure B-160 - Statistical summary of simulated concentration within subregions of the model domain for the uranium plume for the base case simulation using maximum concentration initial conditions.

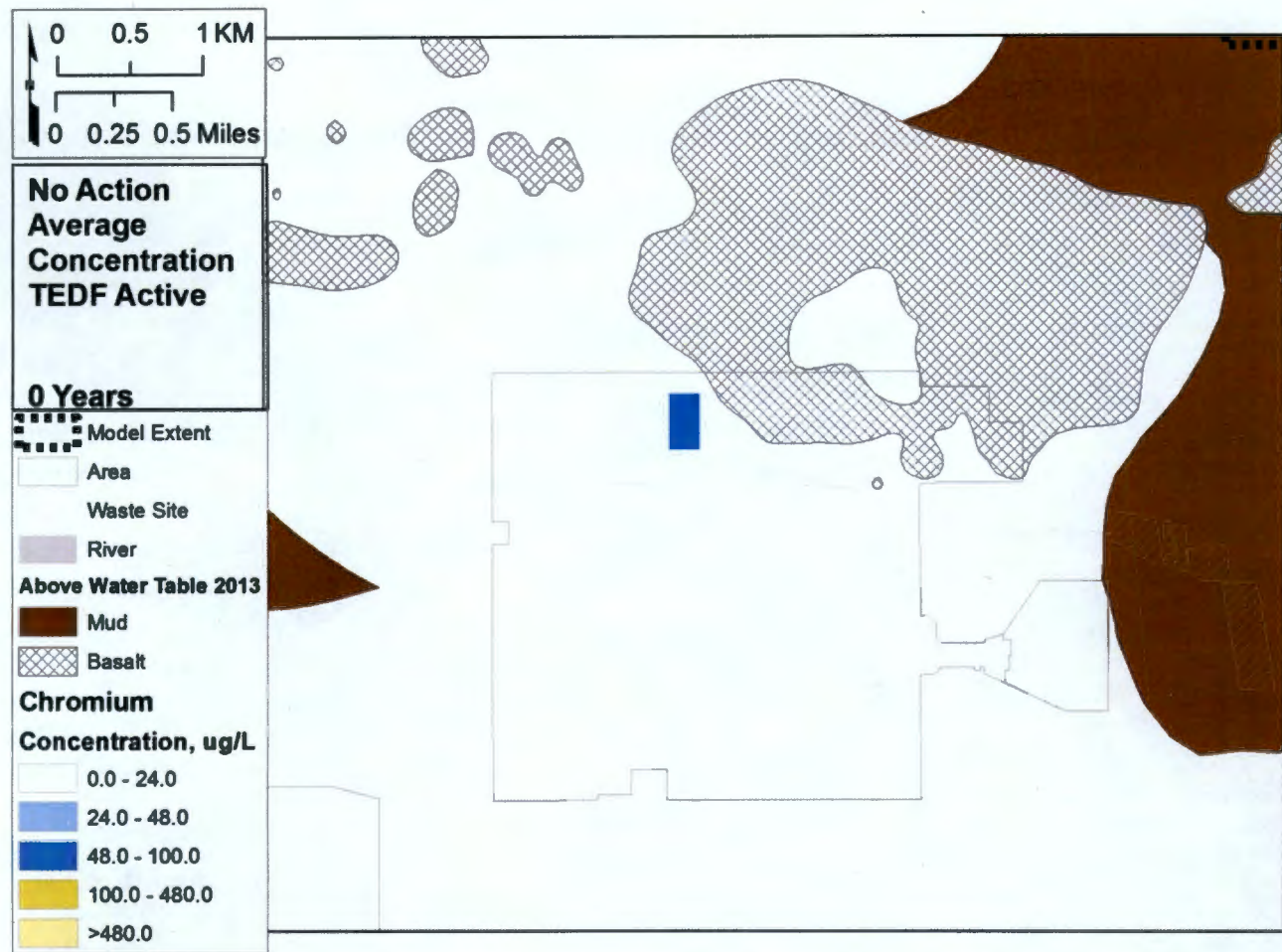
Table 16 - Summary of simulated concentrations (µg/L) at selected well locations within the model domain for the uranium base case simulation using the maximum concentration condition.

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
699-42-42B	200-PO-1	0.0	0.0	1.5	5.7	5.3	4.5	4.2	4.0	3.9	3.7	3.4	3.0	2.7	2.3	2.0	1.7	1.5
699-43-44	200-PO-1	0.0	0.0	0.6	2.6	3.4	3.4	3.3	3.2	3.2	3.3	3.2	3.0	2.7	2.4	2.1	1.8	1.6
699-43-45	200-PO-1	0.0	3.2	91.2	65.3	14.8	5.9	5.7	5.5	5.3	4.5	3.8	3.2	2.7	2.3	1.9	1.6	1.4
699-45-42	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-1	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-14	200-PO-1	7.2	6.3	5.5	4.8	4.3	3.9	3.5	3.3	2.9	2.2	1.8	1.4	1.2	1.0	0.8	0.7	0.6
299-E17-22	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-23	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E17-25	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-16	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-23	200-PO-1	27.4	20.5	14.9	10.8	8.0	6.1	4.7	3.9	3.1	2.0	1.8	1.6	1.4	1.2	1.0	0.9	0.7
299-E25-19	200-PO-1	2.0	0.4	0.9	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-20	200-PO-1	1.3	0.4	1.2	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-3	200-PO-1	9.5	3.6	2.3	1.5	1.0	0.7	0.5	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-36	200-PO-1	39.1	27.0	18.2	12.5	8.8	6.4	4.9	4.0	3.1	2.3	1.9	1.6	1.3	1.1	0.9	0.8	0.6
699-37-47A	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E24-20	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E25-34	200-PO-1	0.0	0.4	14.3	11.2	2.8	0.6	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.0	0.0	0.0	0.0
299-E25-93	200-PO-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-4	200-PO-1	0.0	3.1	27.1	11.9	2.6	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-43-45	200-PO-1	0.0	3.2	91.2	65.3	14.8	5.9	5.7	5.5	5.3	4.5	3.8	3.2	2.7	2.3	1.9	1.6	1.4
CMAX	200-PO-1	57.0	42.7	80.3	67.6	31.0	22.9	17.4	14.1	11.2	7.5	5.3	3.8	3.2	2.8	2.5	2.3	2.1
299-E24-25	200-BP-5	0.0	0.5	0.9	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-2	200-BP-5	5.1	4.1	1.3	1.0	0.8	0.6	0.5	0.5	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-23	200-BP-5	2.8	6.8	3.0	1.4	0.8	0.8	0.7	0.7	0.7	0.6	0.5	0.6	0.7	0.7	0.8	0.8	0.8
299-E28-24	200-BP-5	2.7	6.8	3.0	1.4	0.8	0.8	0.7	0.7	0.7	0.6	0.6	0.6	0.7	0.8	0.8	0.9	0.9
299-E28-30	200-BP-5	21.0	19.8	18.8	17.8	16.9	16.1	15.4	14.9	14.2	12.3	10.8	9.6	9.0	8.6	8.2	7.7	7.3
299-E29-54	200-BP-5	41.0	30.8	21.5	15.4	11.4	8.6	6.6	4.6	2.9	0.9	0.8	0.8	0.7	0.7	0.7	0.7	0.7
299-E33-16	200-BP-5	1611.6	52.0	9.1	2.6	1.1	0.6	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-18	200-BP-5	2311.8	39.8	6.6	1.8	0.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-1A	200-BP-5	765.8	34.8	7.8	2.5	1.2	0.7	0.5	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-2	200-BP-5	552.9	32.7	7.5	2.5	1.2	0.7	0.5	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-205	200-BP-5	1505.3	30.4	5.7	1.6	0.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-26	200-BP-5	139.9	19.1	3.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-3	200-BP-5	431.1	31.9	7.6	2.5	1.2	0.7	0.5	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-31	200-BP-5	711.4	36.8	6.9	2.0	0.9	0.5	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-32	200-BP-5	506.8	20.5	3.6	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-337	200-BP-5	1445.8	28.0	3.7	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-339	200-BP-5	2082.2	21.8	3.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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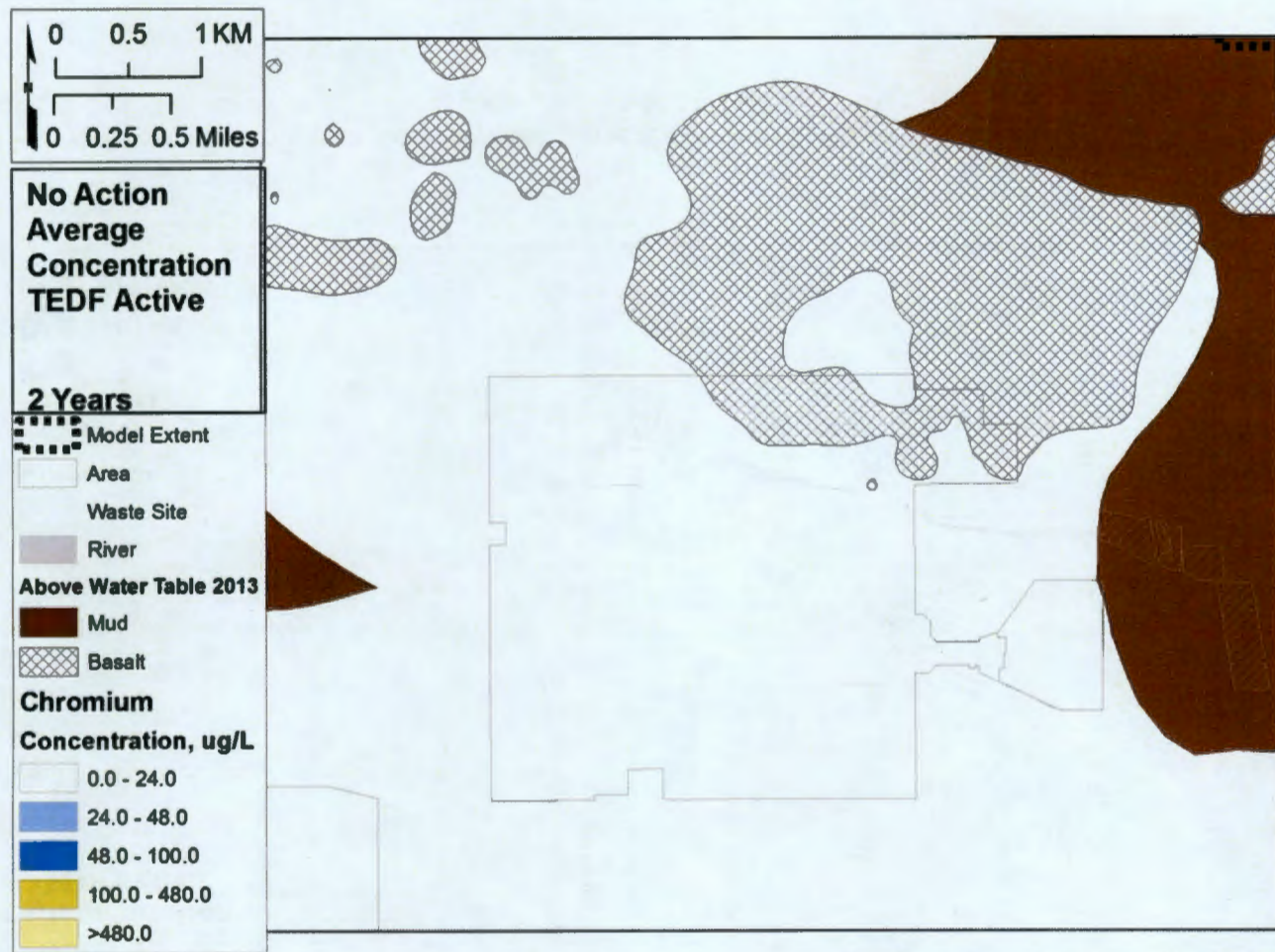
Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E33-341	200-BP-5	381.6	30.1	7.0	2.3	1.1	0.7	0.5	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-342	200-BP-5	955.9	36.5	7.9	2.5	1.1	0.7	0.5	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-343	200-BP-5	2244.0	35.1	6.1	1.6	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-345	200-BP-5	2315.1	40.2	6.7	1.8	0.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-38	200-BP-5	726.9	34.5	7.4	2.4	1.1	0.7	0.5	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-4	200-BP-5	245.1	29.7	7.3	2.5	1.2	0.7	0.5	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-41	200-BP-5	2173.1	29.4	5.3	1.4	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-42	200-BP-5	579.4	28.7	5.2	1.5	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-43	200-BP-5	448.9	17.1	2.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-44	200-BP-5	1988.9	40.8	8.2	2.4	1.0	0.6	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-47	200-BP-5	2343.1	40.4	5.4	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-49	200-BP-5	1639.4	18.7	2.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-5	200-BP-5	605.7	33.2	7.2	2.3	1.1	0.7	0.5	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-7	200-BP-5	205.5	27.9	6.9	2.4	1.2	0.7	0.5	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-9	200-BP-5	1609.3	40.1	8.0	2.4	1.0	0.6	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-45-42	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-49-57A	200-BP-5	0.0	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-50-56	200-BP-5	0.0	1.8	1.7	1.7	1.6	1.5	1.4	1.4	1.3	1.1	0.9	0.8	0.7	0.6	0.5	0.5	0.4
699-50-59	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-55C	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-55-57	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-57-59	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-60-60	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-61-62	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-47B	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-53-48A	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699-54-49	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E26-10	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E28-27	200-BP-5	0.7	3.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-10	200-BP-5	41.2	6.8	1.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-6	200-BP-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-7	200-BP-5	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E32-9	200-BP-5	20.5	3.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-29	200-BP-5	16.2	7.5	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-34	200-BP-5	64.7	10.5	2.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E33-35	200-BP-5	102.5	14.2	2.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-10	200-BP-5	0.0	247.5	81.4	9.2	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-12	200-BP-5	15.4	168.6	9.8	1.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E34-9	200-BP-5	236.8	19.1	1.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-13	200-BP-5	0.0	21.6	48.7	15.3	3.4	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Well Name	Area	1 year	25 year	50 year	75 year	100 year	125 year	150 year	170 year	200 year	300 year	400 year	500 year	600 year	700 year	800 year	900 year	1000 year
299-E27-14	200-BP-5	0.0	18.5	52.2	17.0	3.7	1.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-155	200-BP-5	0.0	17.6	32.7	9.8	2.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-21	200-BP-5	0.0	11.0	29.4	9.7	2.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-22	200-BP-5	0.0	88.5	74.0	10.9	1.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-23	200-BP-5	0.0	17.3	39.8	12.6	2.8	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-24	200-BP-5	0.0	13.0	36.7	12.1	2.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299-E27-4	200-BP-5	0.0	24.8	49.9	15.2	3.3	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



P2RGWM_crvj_0.png (DoubleFigure_P2RGWM.mxd)

Figure B-161 - Plan view contours of the hexavalent chromium plume at simulation time 0 years based on the TEDF future use simulation using average concentration initial conditions



P2RGWM_crv1_2.png (DoubleFigure_P2RGWM.mxd)

Figure B-162 - Plan view contours of the hexavalent chromium plume at simulation time 2 years based on the TEDF future use simulation using average concentration initial conditions

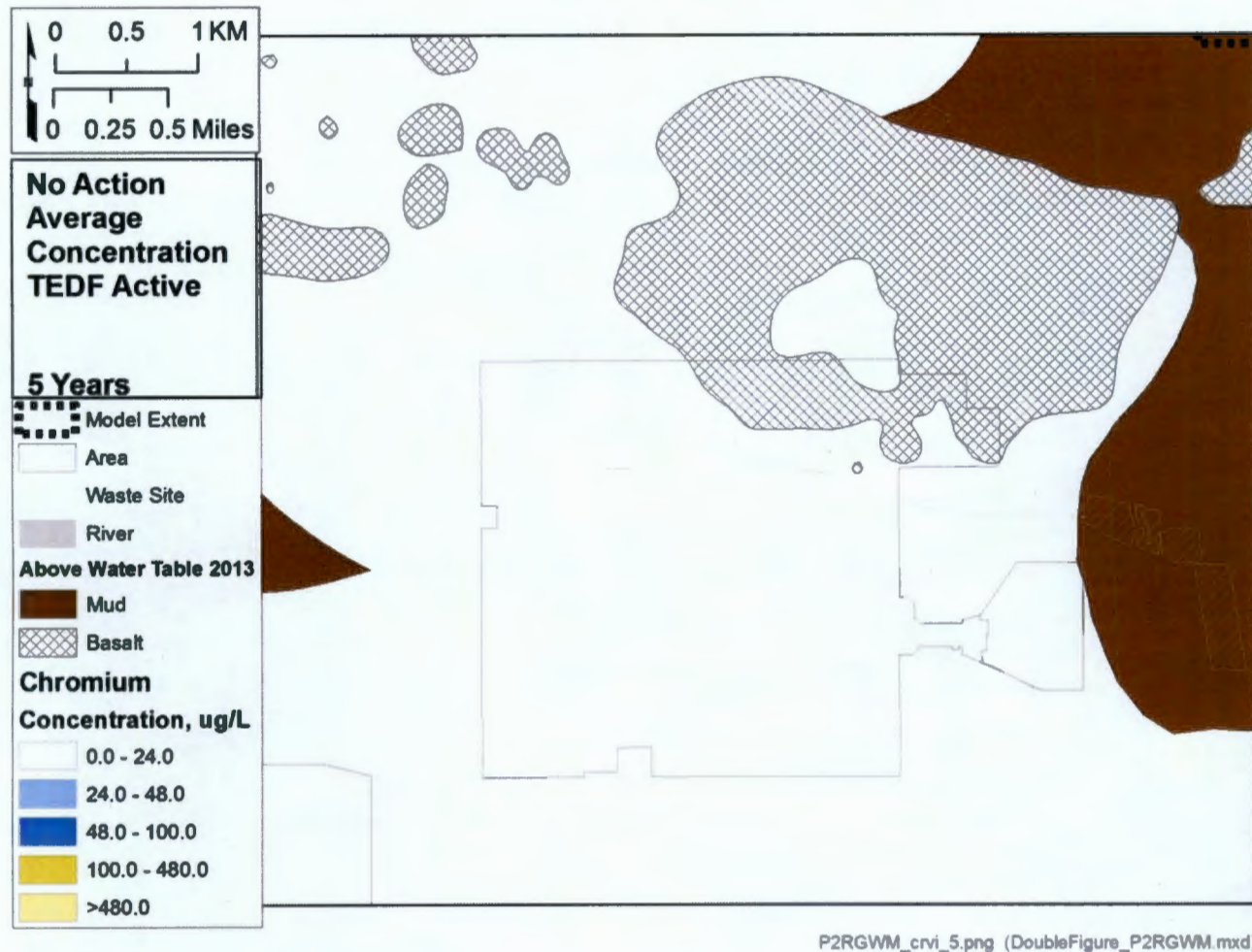


Figure B-163 - Plan view contours of the hexavalent chromium plume at simulation time 5 years based on the TEDF future use simulation using average concentration initial conditions

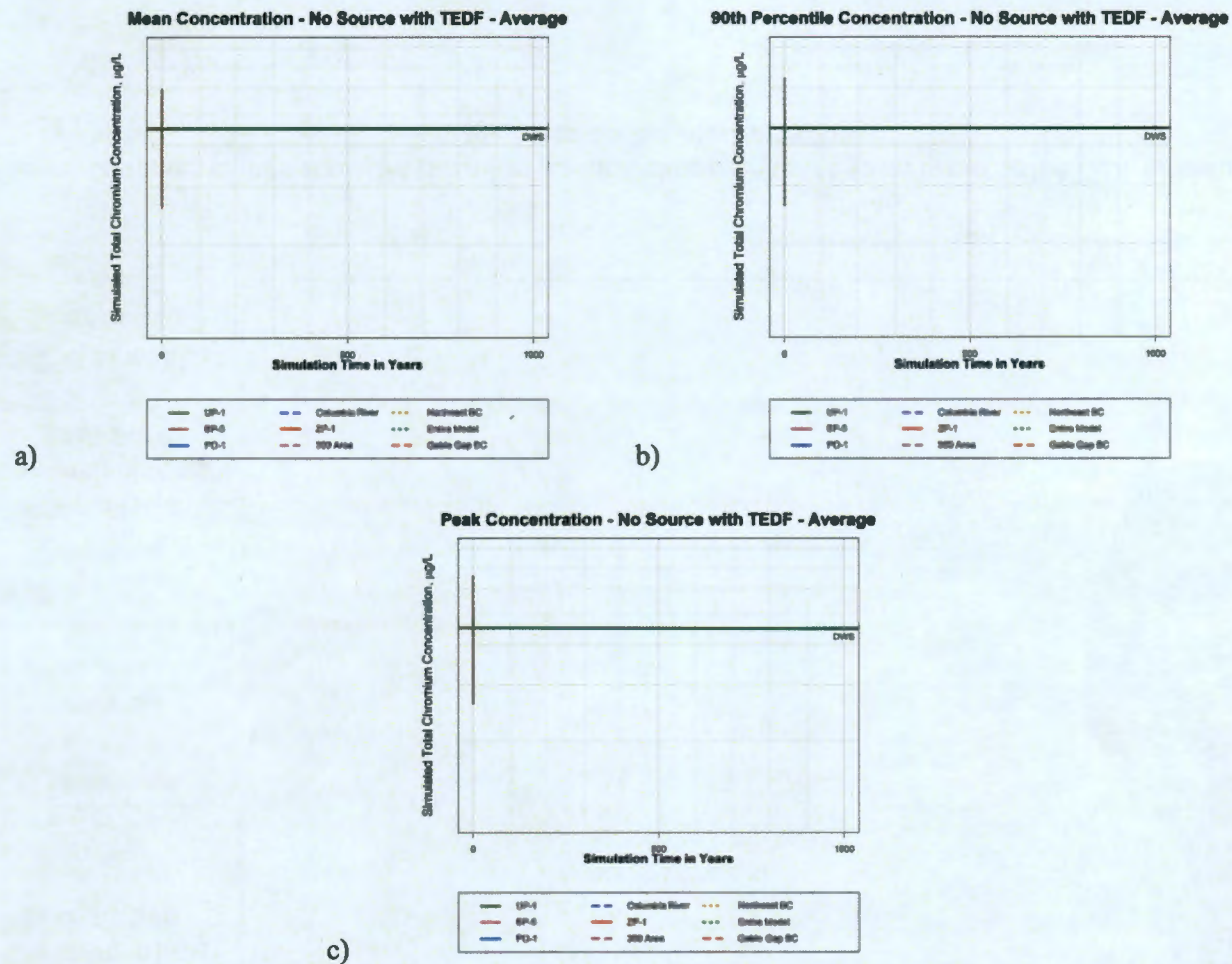
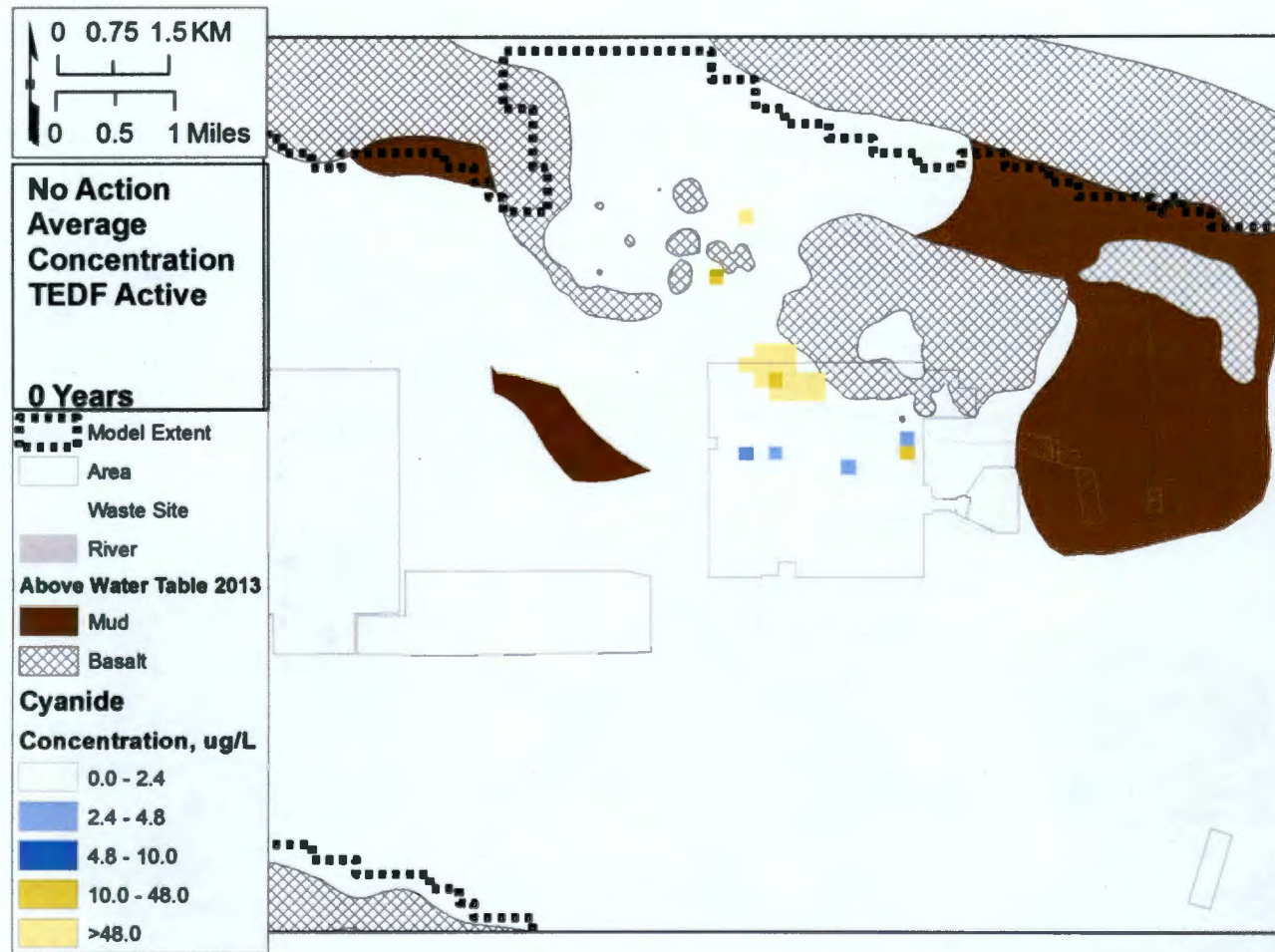


Figure B-164 - Statistical summary of simulated concentration within subregions of the model domain for the hexavalent chromium plume for the TEDF future use simulation using average concentration initial conditions.



P2RGWM_cyan_0.png (DoubleFigure_P2RGWM.mxd)

Figure B-165 - Plan view contours of the cyanide plume at simulation time 0 years based on the TEDF future use simulation using average concentration initial conditions

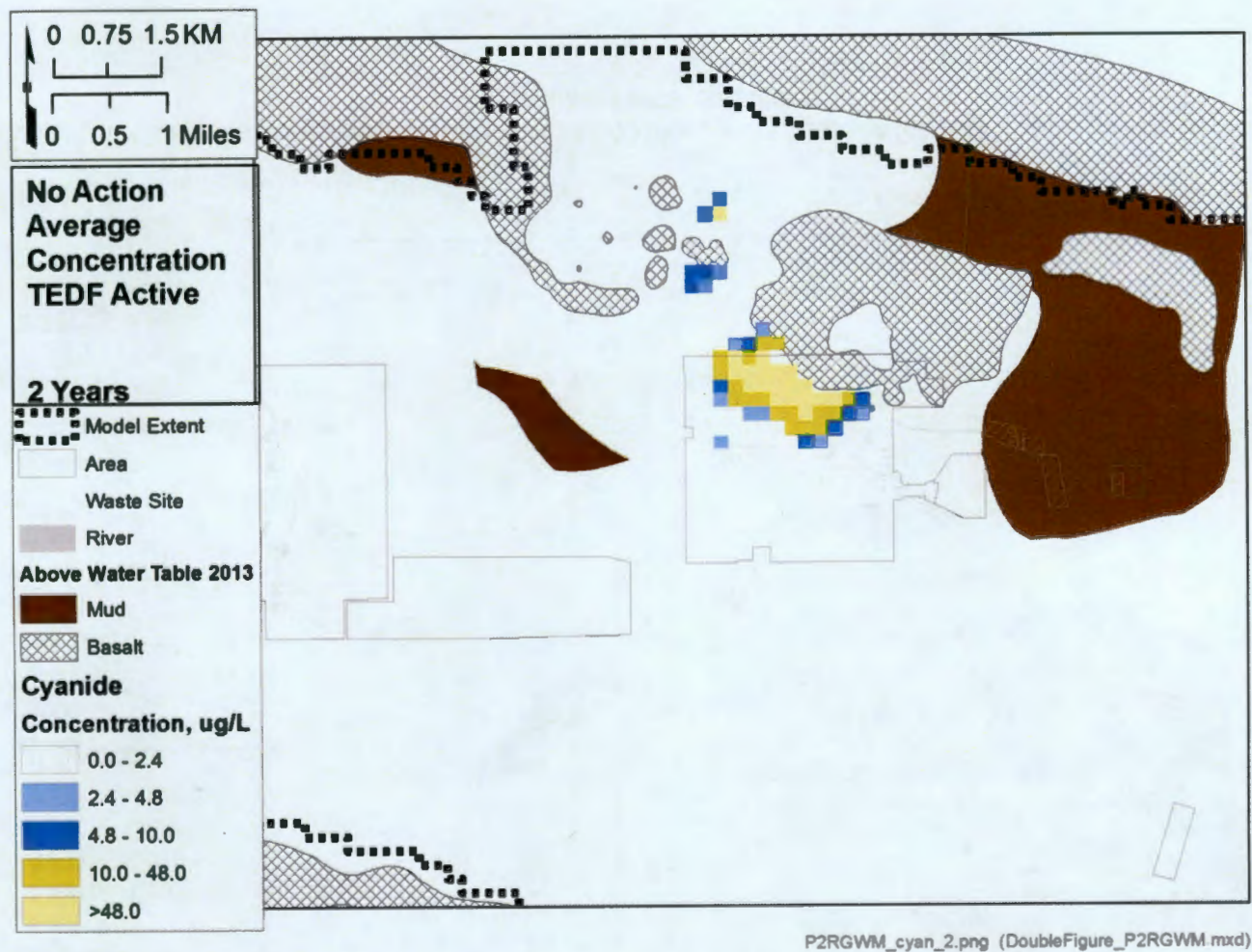


Figure B-166 - Plan view contours of the cyanide plume at simulation time 2 years based on the TEDF future use simulation using average concentration initial conditions

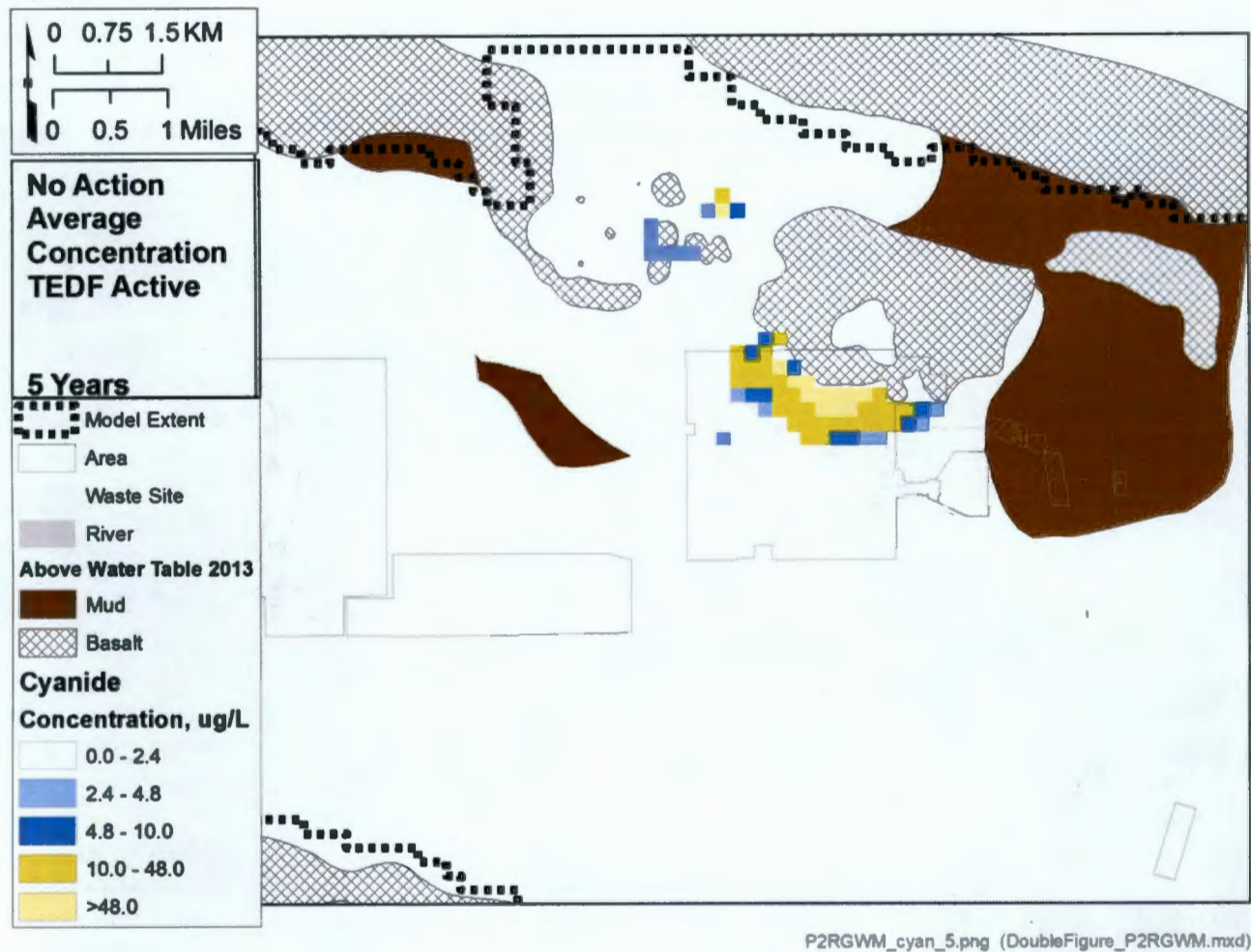
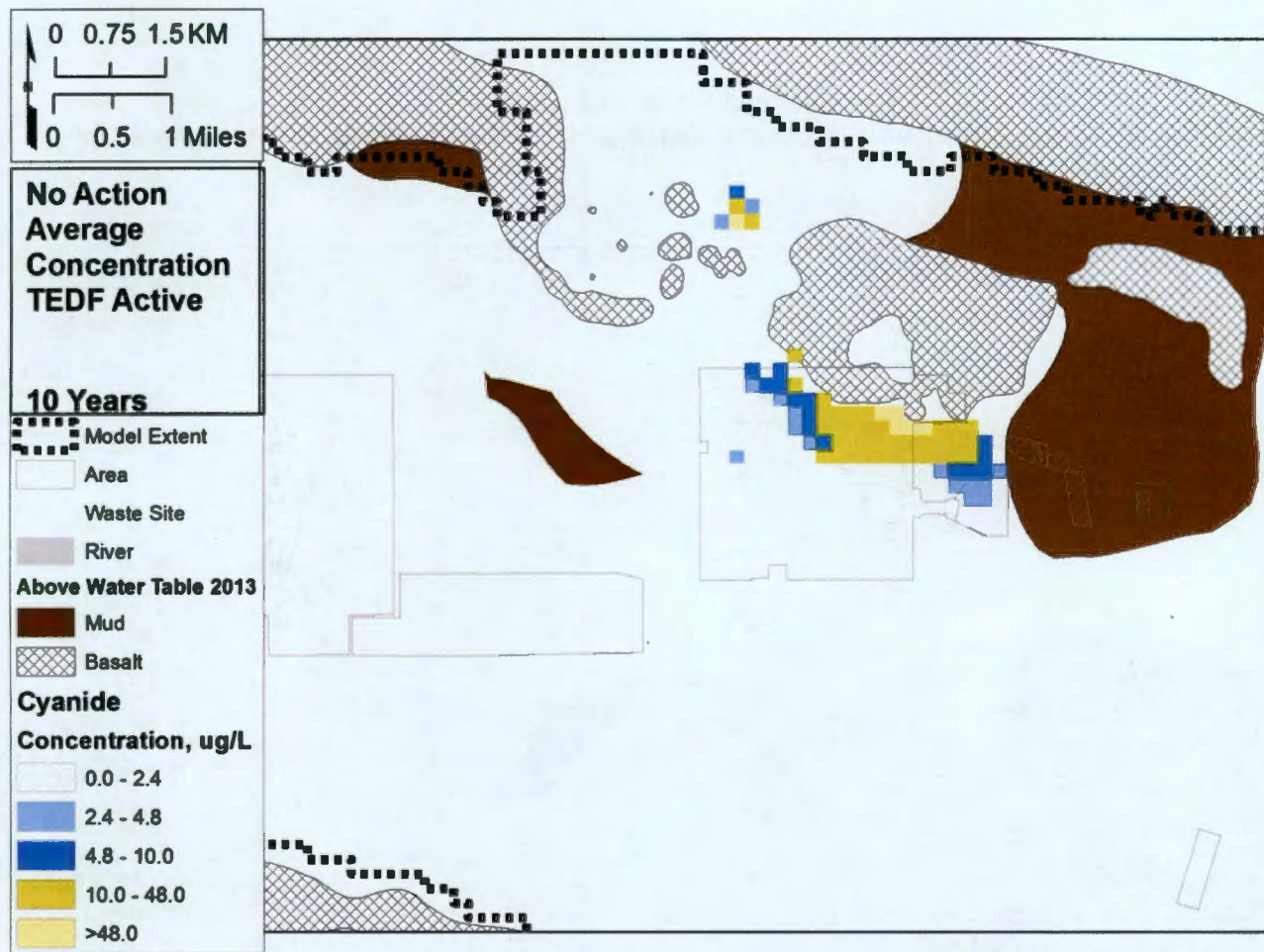


Figure B-167 - Plan view contours of the cyanide plume at simulation time 5 years based on the TEDF future use simulation using average concentration initial conditions



P2RGWM_cyan_10.png (DoubleFigure_P2RGWM.mxd)

Figure B-168 - Plan view contours of the cyanide plume at simulation time 10 years based on the TEDF future use simulation using average concentration initial conditions

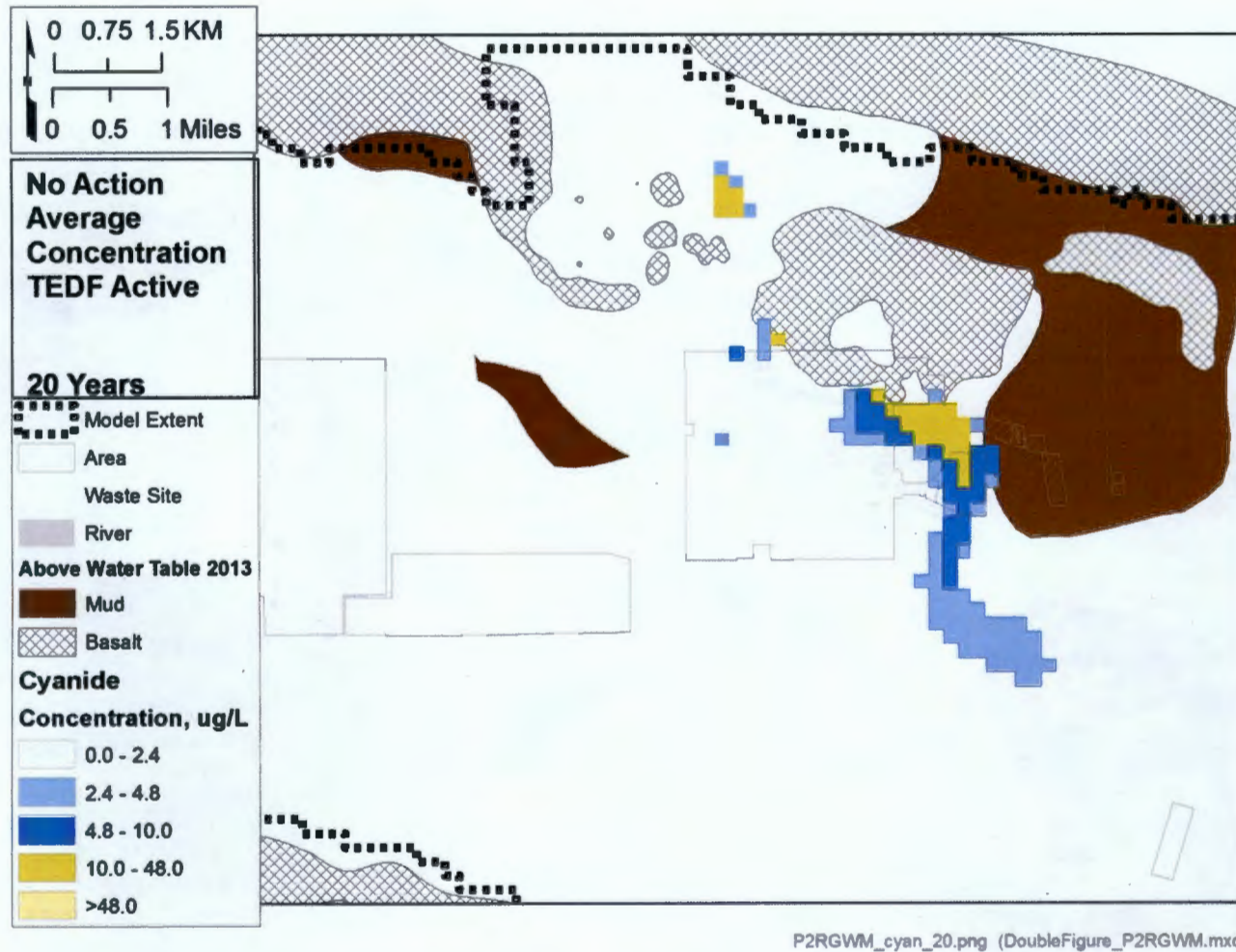
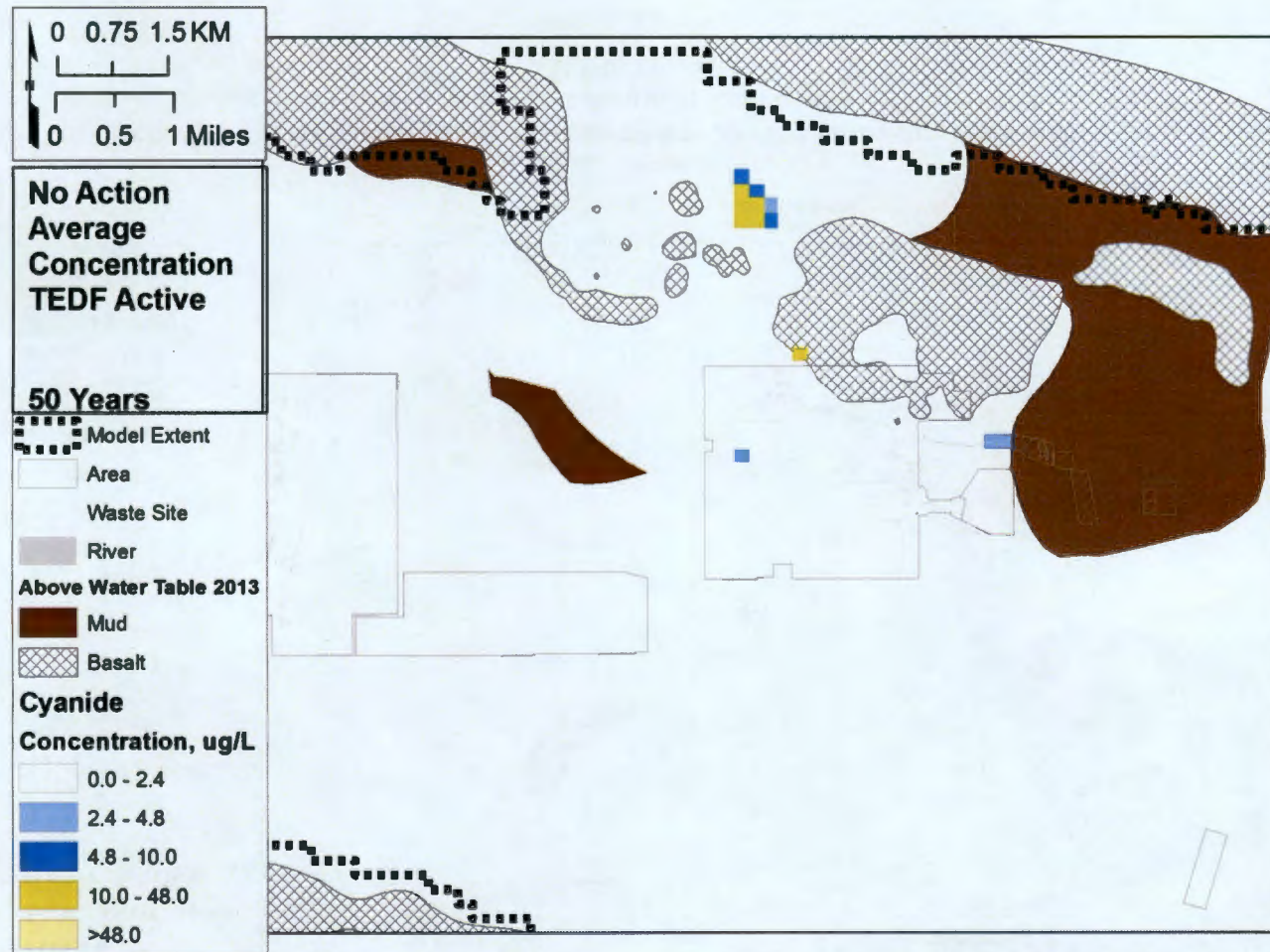
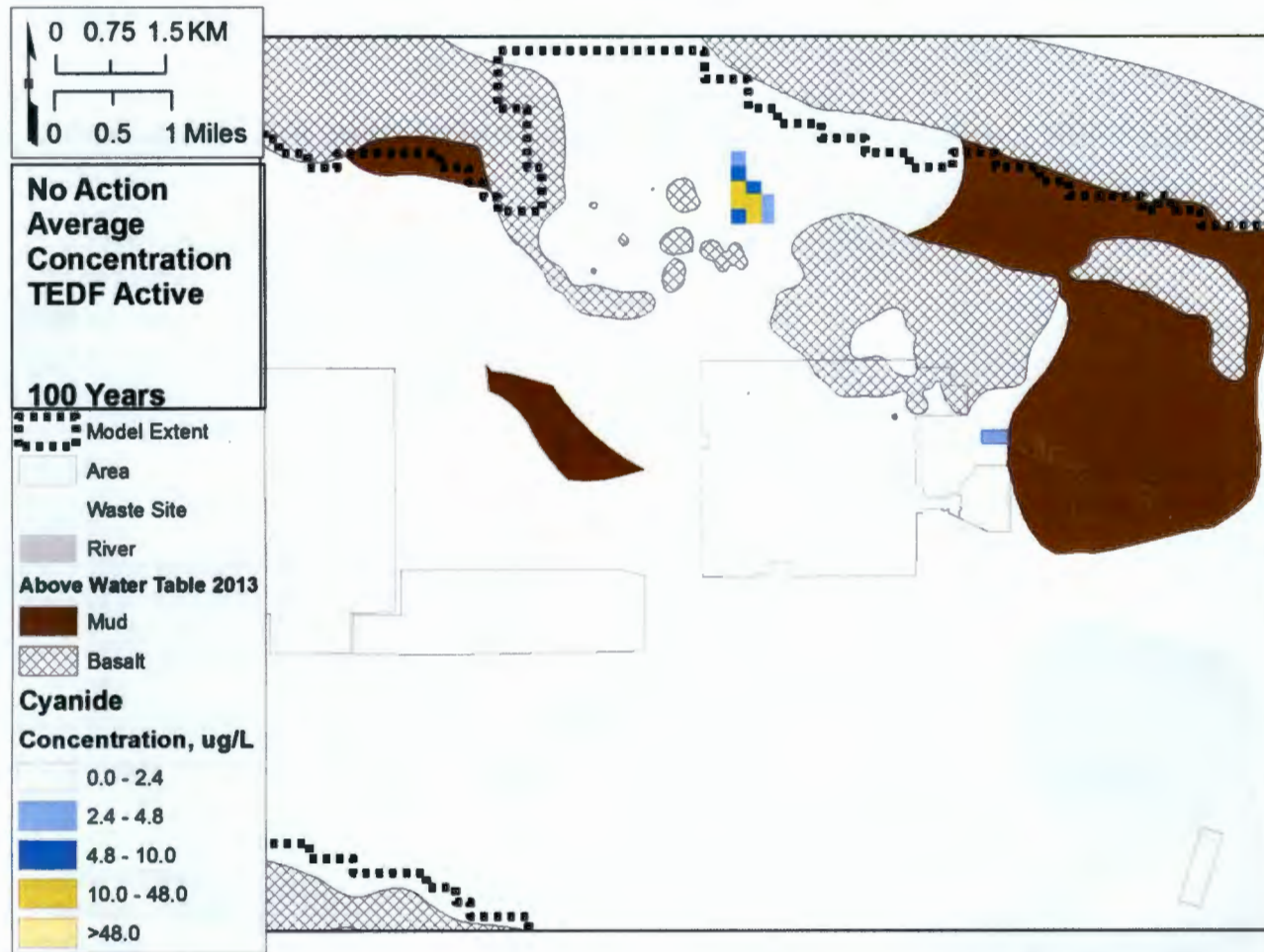


Figure B-169 - Plan view contours of the cyanide plume at simulation time 20 years based on the TEDF future use simulation using average concentration initial conditions



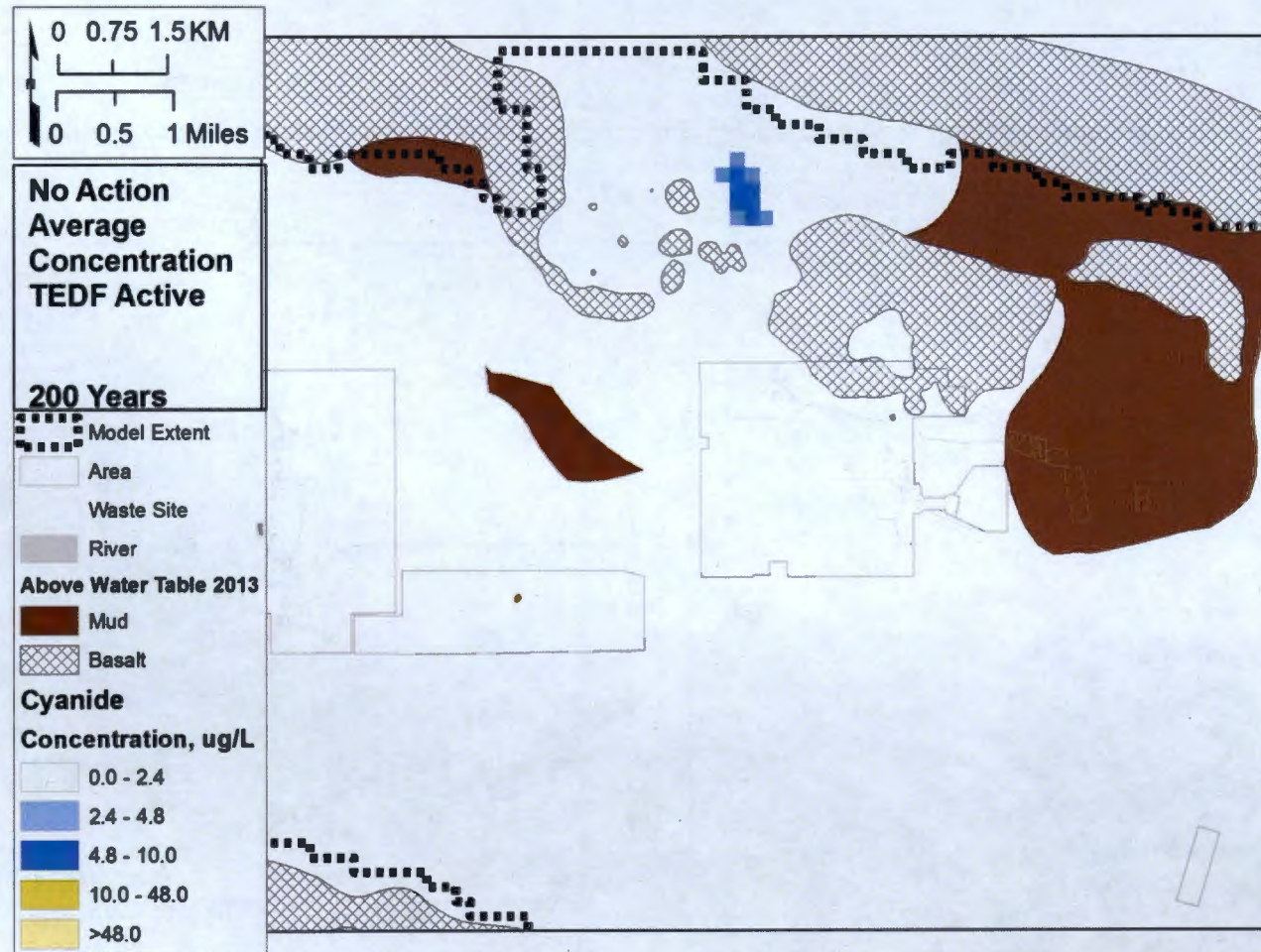
P2RGWM_cyan_50.png (DoubleFigure_P2RGWM.mxd)

Figure B-170 - Plan view contours of the cyanide plume at simulation time 50 years based on the TEDF future use simulation using average concentration initial conditions



P2RGWM_cyan_100.png (DoubleFigure_P2RGWM.mxd)

Figure B-171 - Plan view contours of the cyanide plume at simulation time 100 years based on the TEDF future use simulation using average concentration initial conditions



P2RGWM_cyan_200.png (DoubleFigure_P2RGWM.mxd)

Figure B-172 - Plan view contours of the cyanide plume at simulation time 200 years based on the TEDF future use simulation using average concentration initial conditions

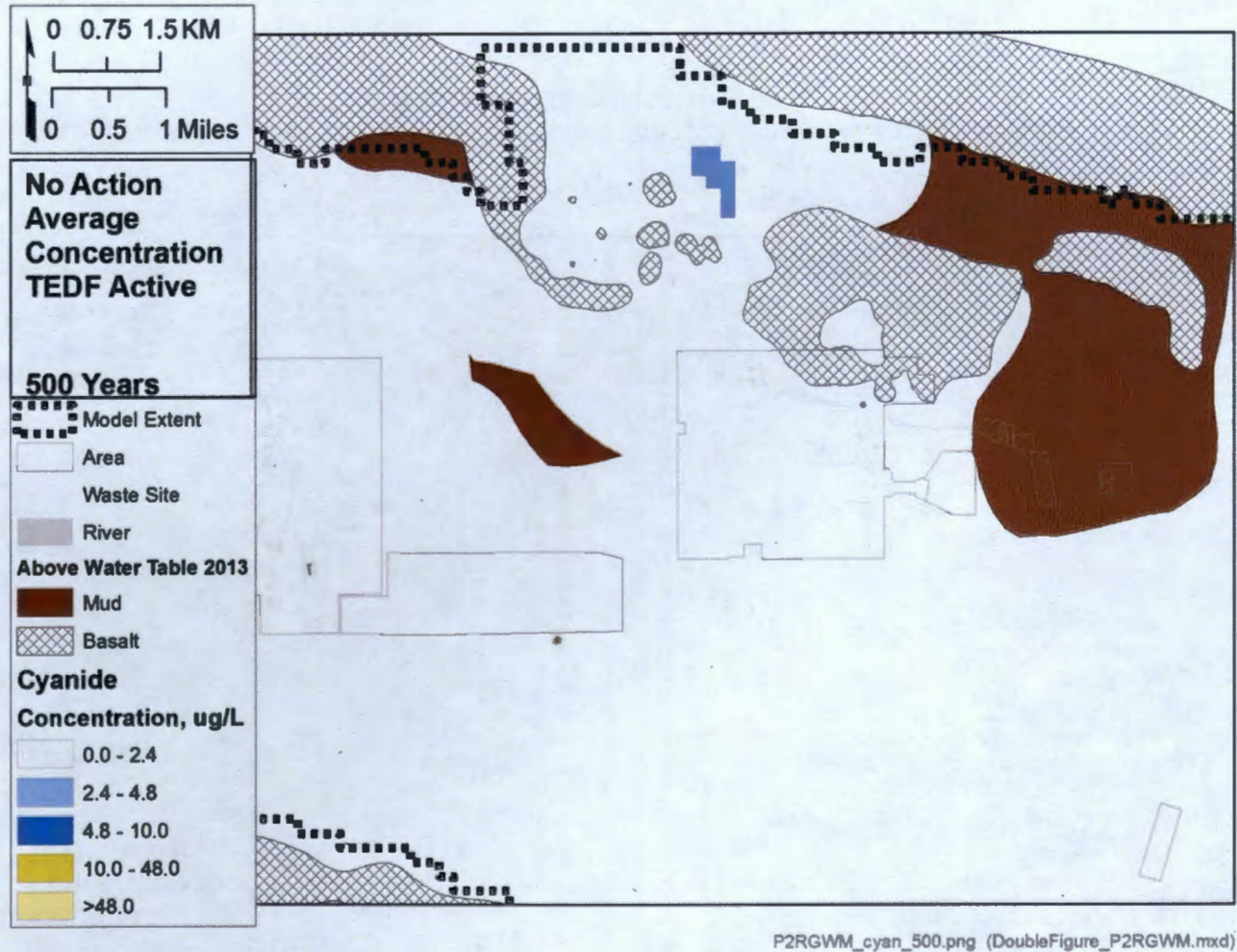
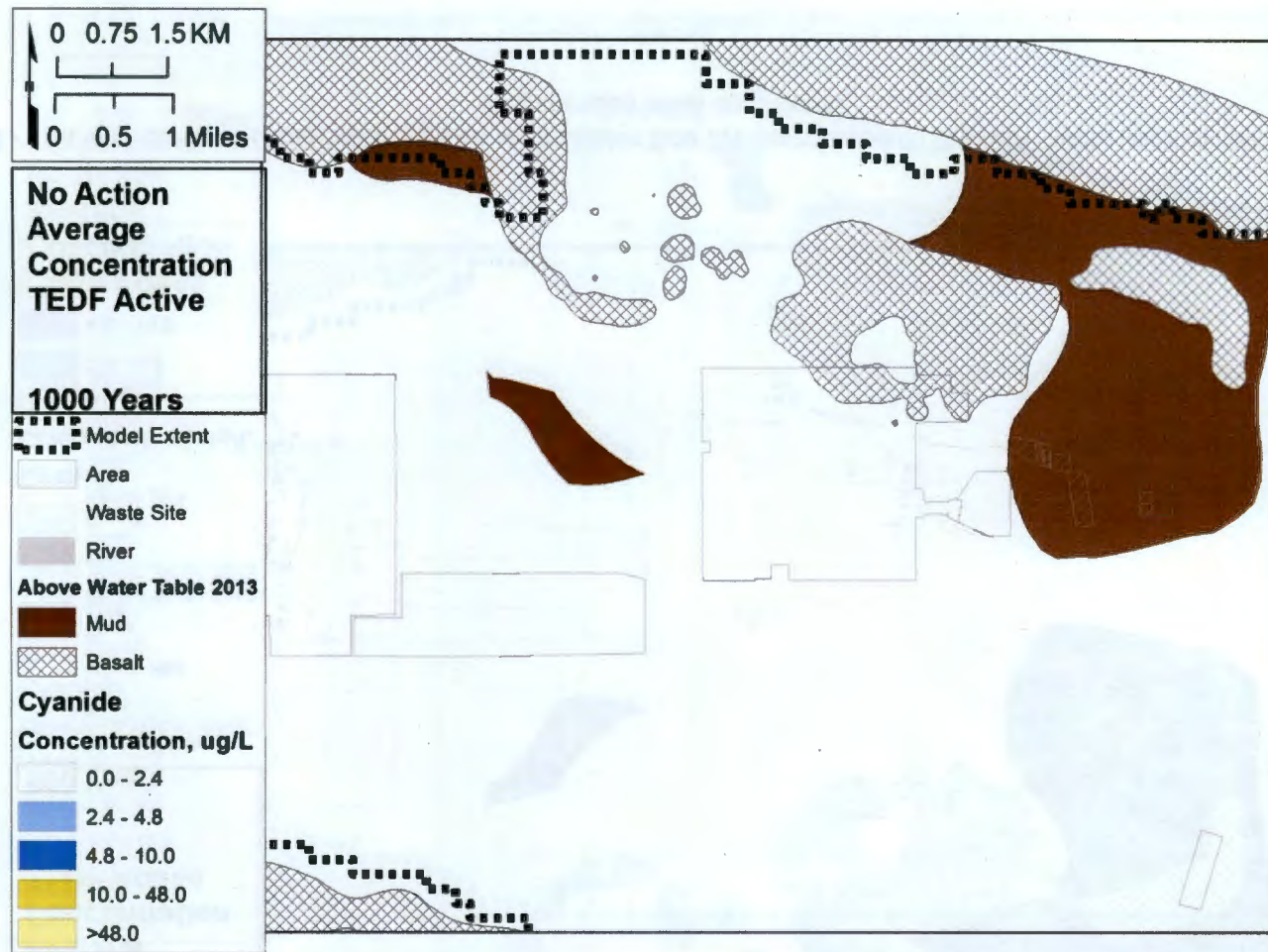


Figure B-173 - Plan view contours of the cyanide plume at simulation time 500 years based on the TEDF future use simulation using average concentration initial conditions



P2RGWM_cyan_1000.png (DoubleFigure_P2RGWM.mxd)

Figure B-174 - Plan view contours of the cyanide plume at simulation time 1000 years based on the TEDF future use simulation using average concentration initial conditions

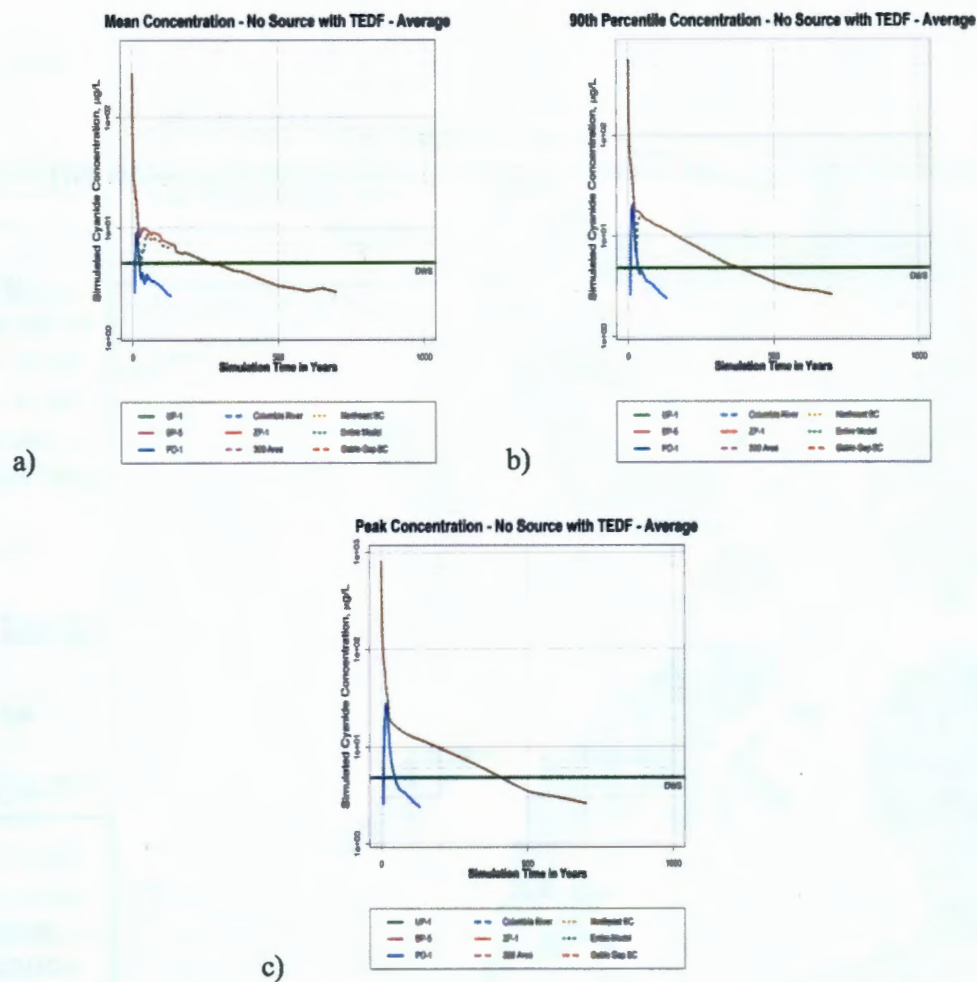


Figure B-175 - Statistical summary of simulated concentration within subregions of the model domain for the cyanide plume for the TEDF future use simulation using average concentration initial conditions.

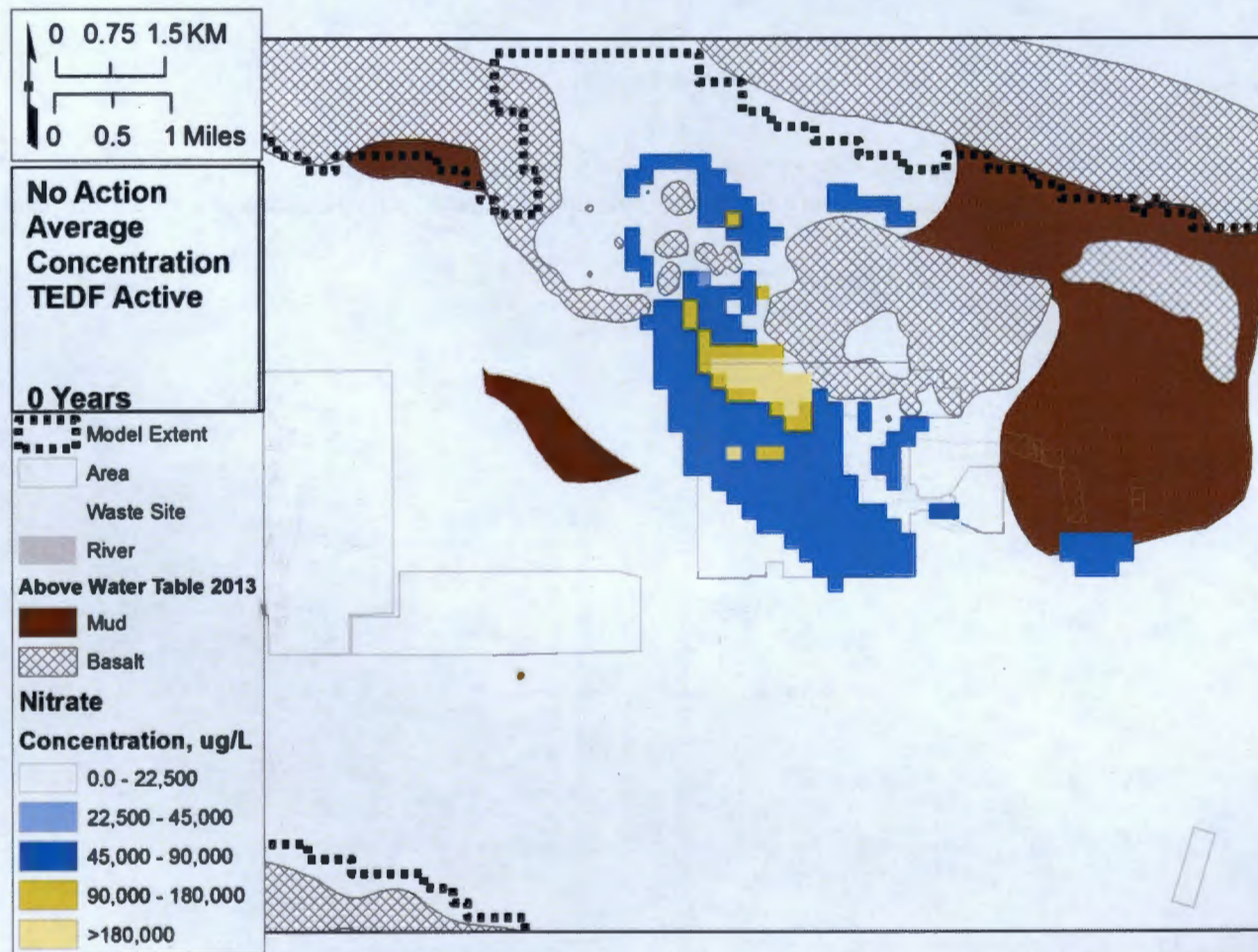


Figure B-176 - Plan view contours of the nitrate plume at simulation time 0 years based on the TEDF future use simulation using average concentration initial conditions

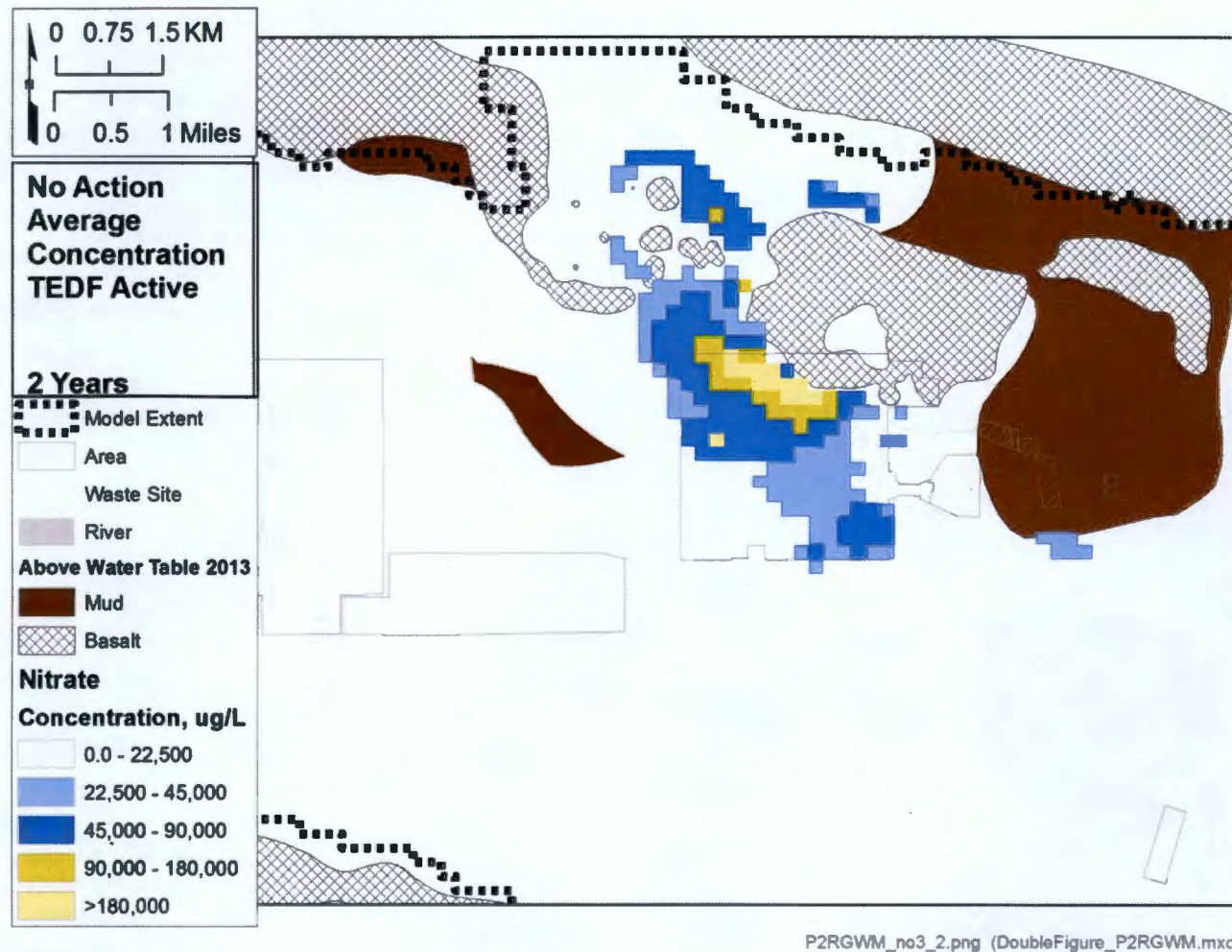


Figure B-177 - Plan view contours of the nitrate plume at simulation time 2 years based on the TEDF future use simulation using average concentration initial conditions

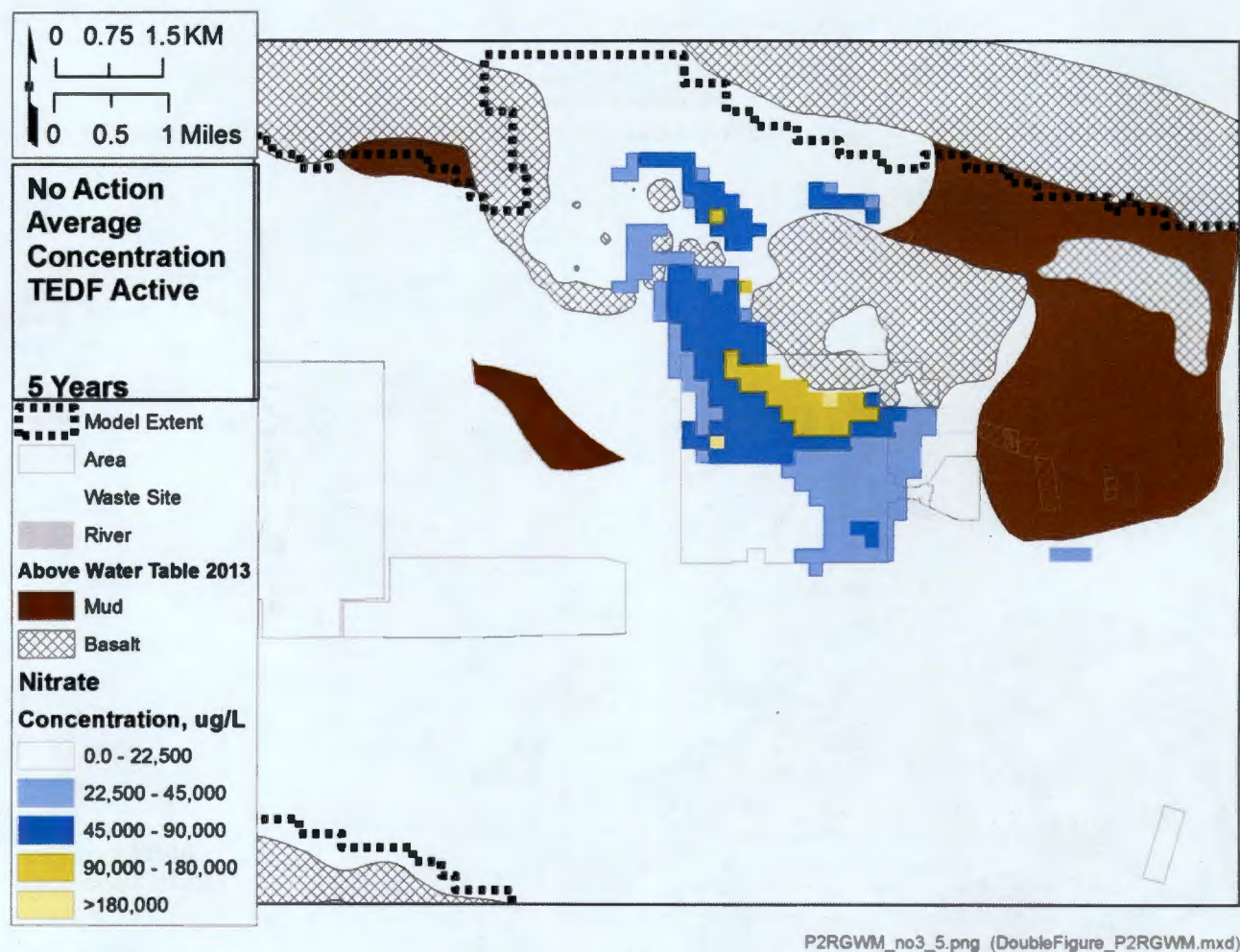


Figure B-178 - Plan view contours of the nitrate plume at simulation time 5 years based on the TEDF future use simulation using average concentration initial conditions

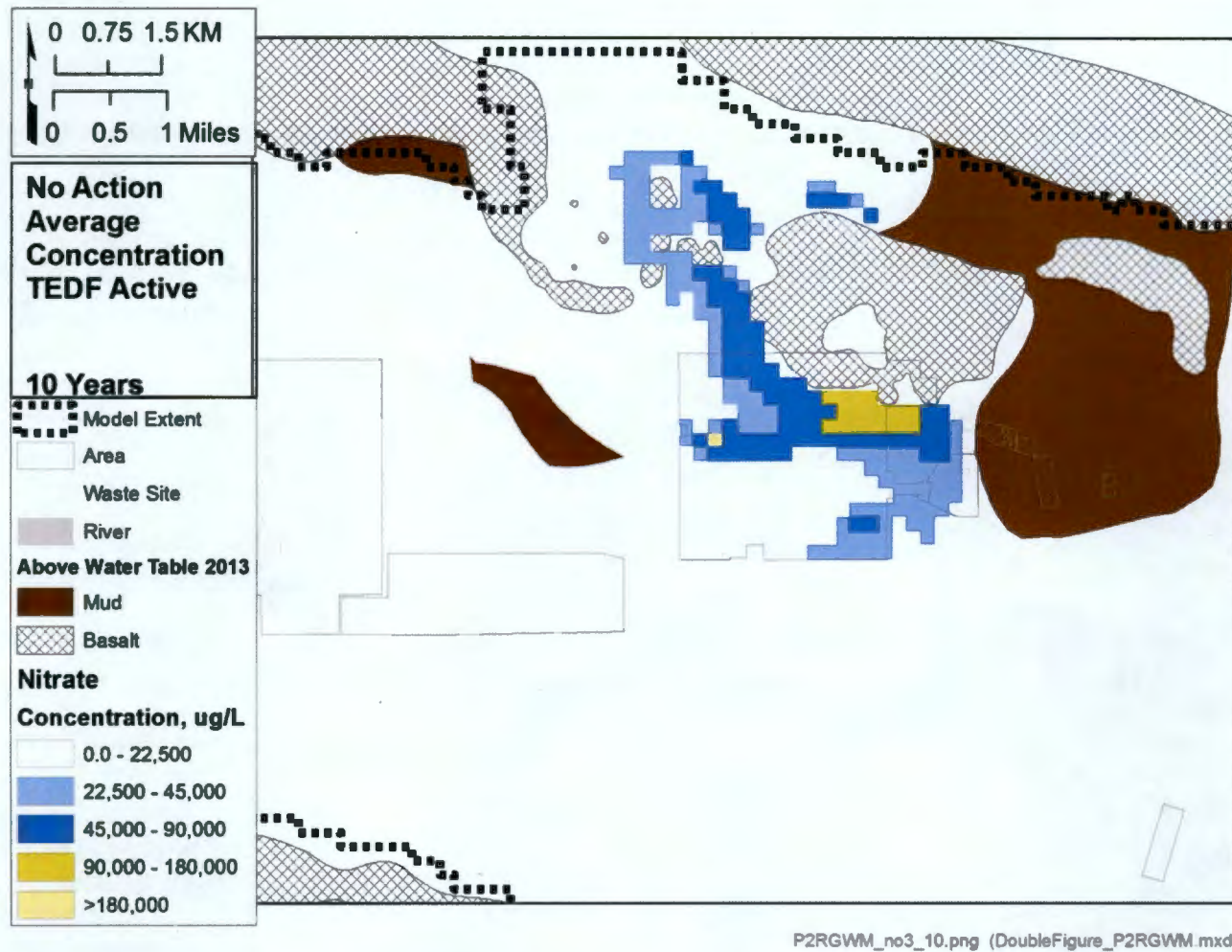
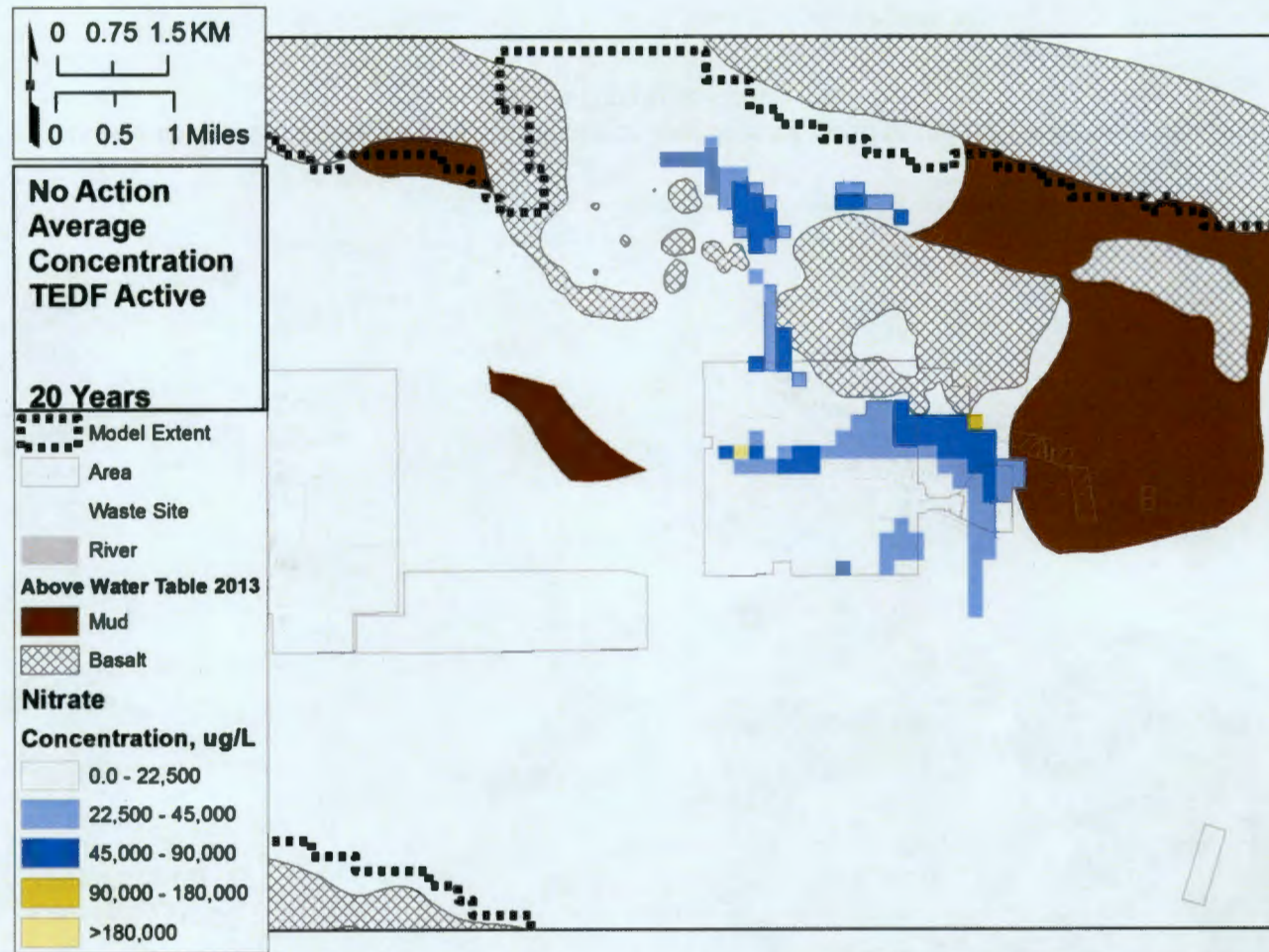


Figure B-179 - Plan view contours of the nitrate plume at simulation time 10 years based on the TEDF future use simulation using average concentration initial conditions



P2RGWM_no3_20.png (DoubleFigure_P2RGWM.mxd)

Figure B-180 - Plan view contours of the nitrate plume at simulation time 20 years based on the TEDF future use simulation using average concentration initial conditions

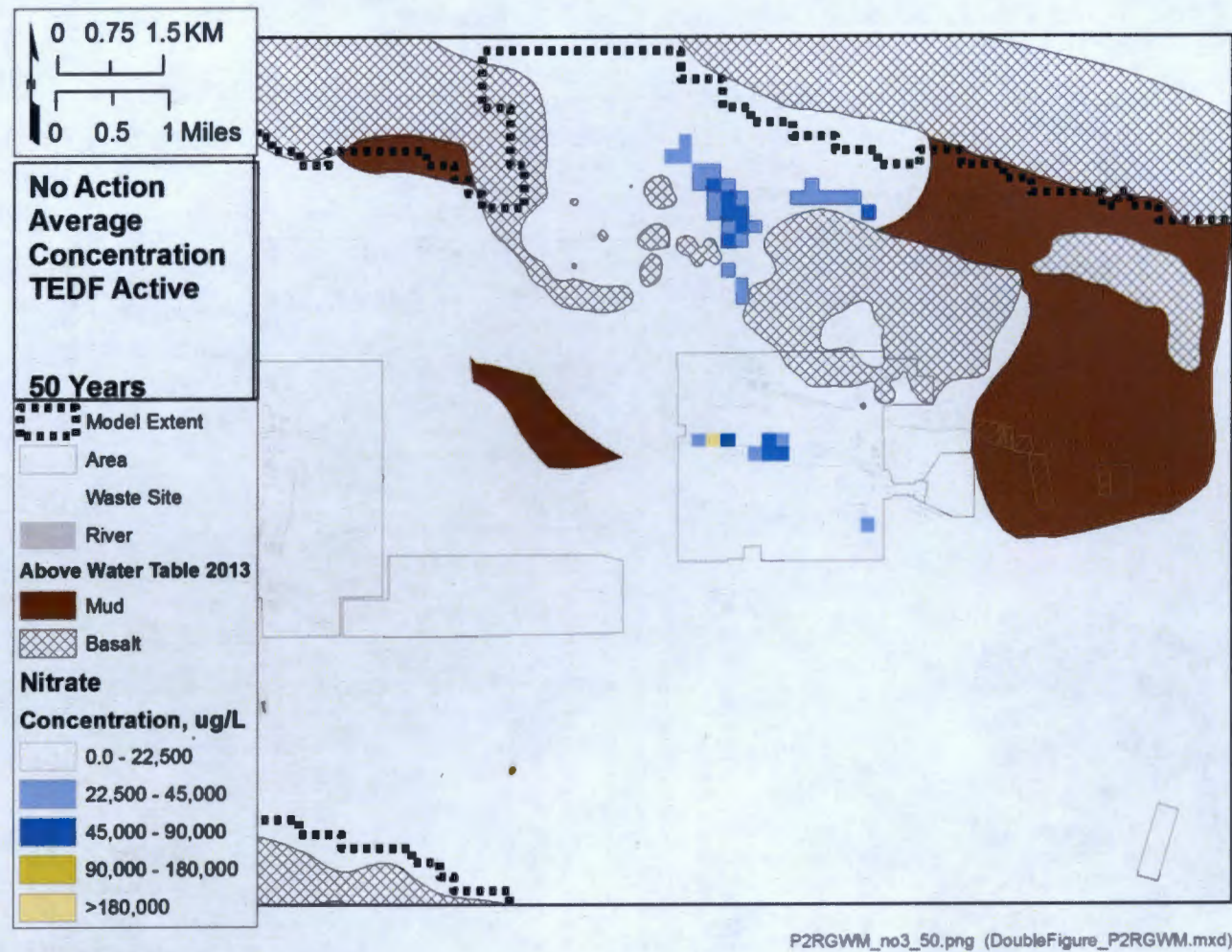


Figure B-181 - Plan view contours of the nitrate plume at simulation time 50 years based on the TEDF future use simulation using average concentration initial conditions

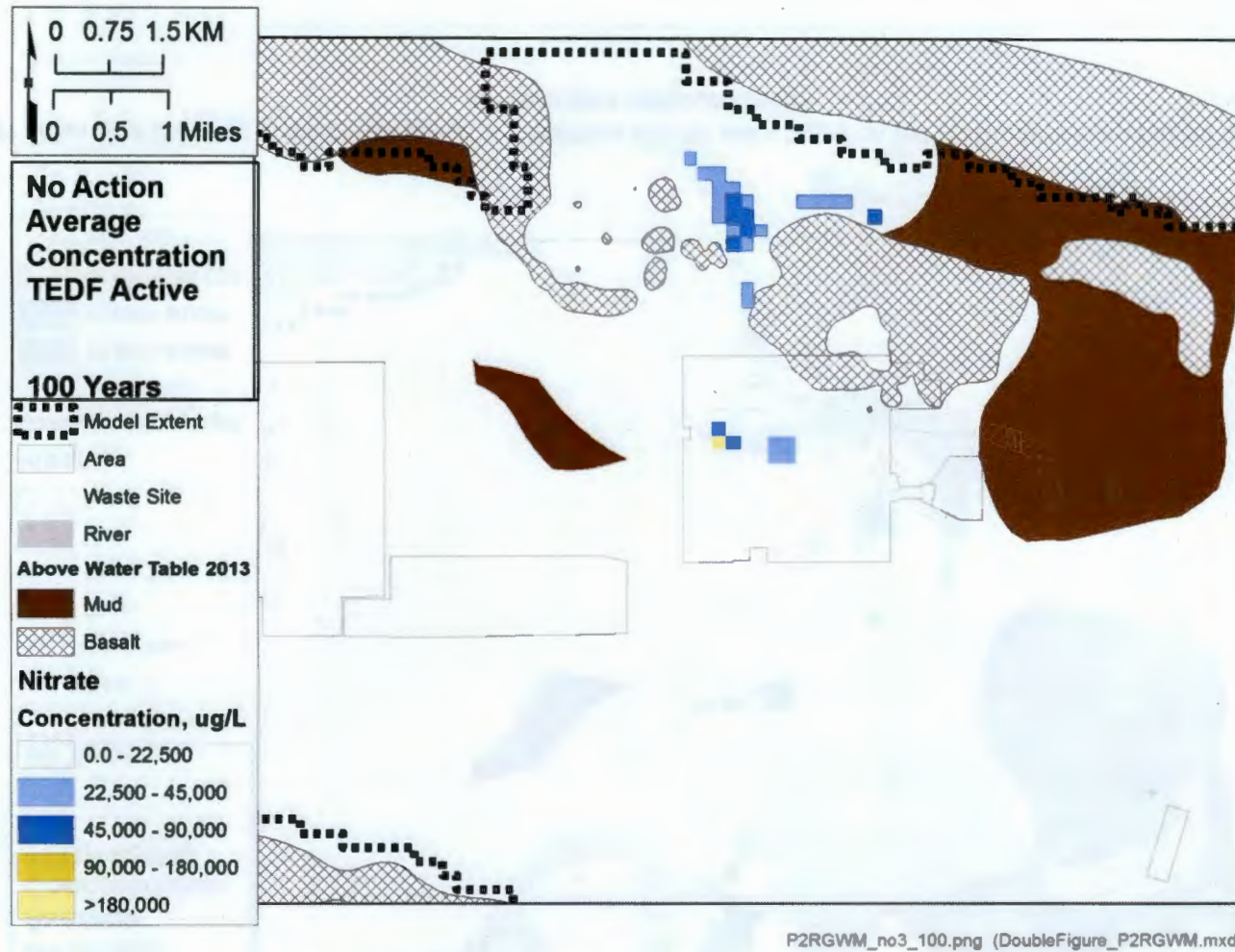
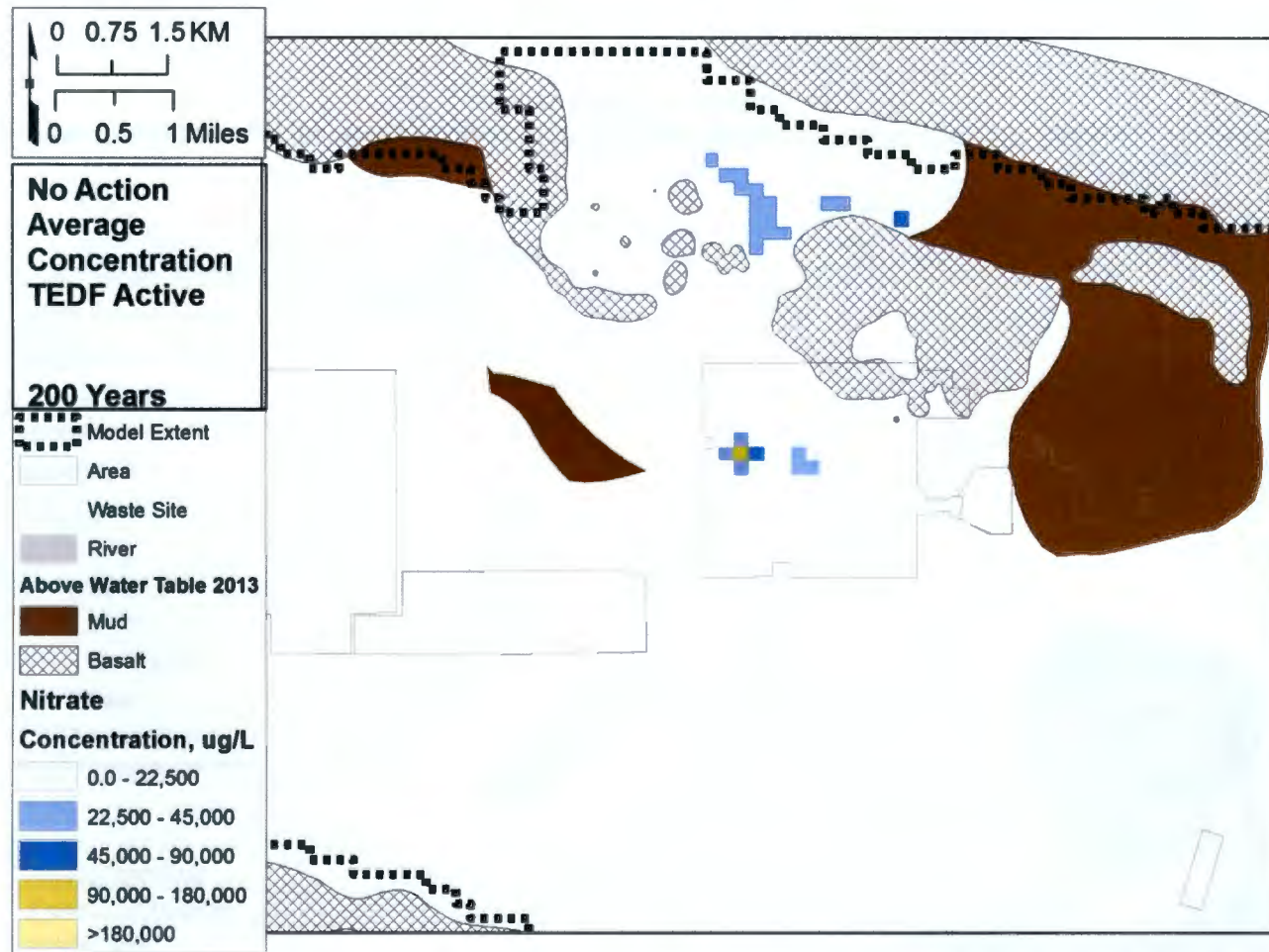
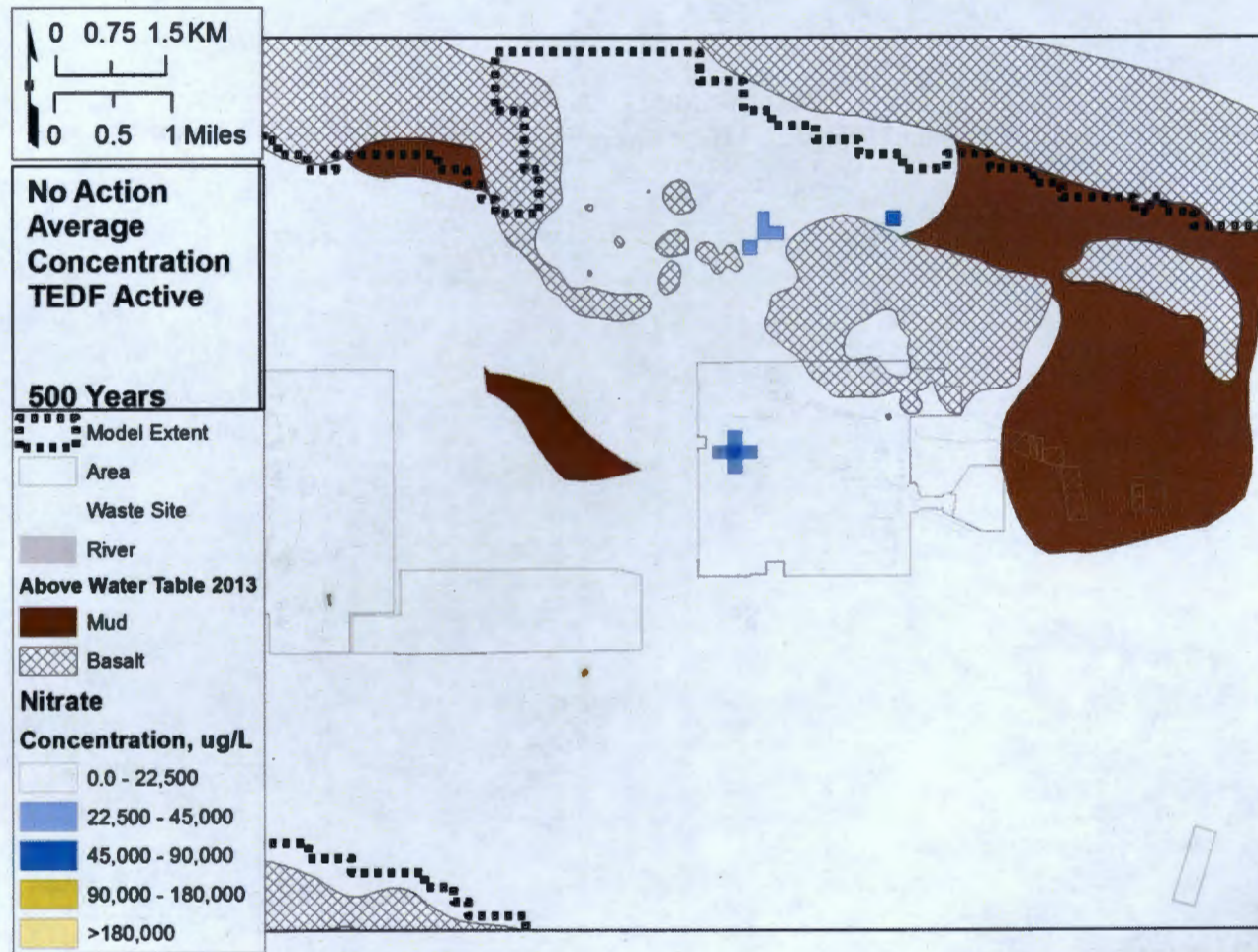


Figure B-182 - Plan view contours of the nitrate plume at simulation time 100 years based on the TEDF future use simulation using average concentration initial conditions



P2RGWM_no3_200.png (DoubleFigure_P2RGWM mxd)

Figure B-183 - Plan view contours of the nitrate plume at simulation time 200 years based on the TEDF future use simulation using average concentration initial conditions



P2RGWM_no3_500.png (DoubleFigure_P2RGWM.mxd)

Figure B-184 - Plan view contours of the nitrate plume at simulation time 500 years based on the TEDF future use simulation using average concentration initial conditions

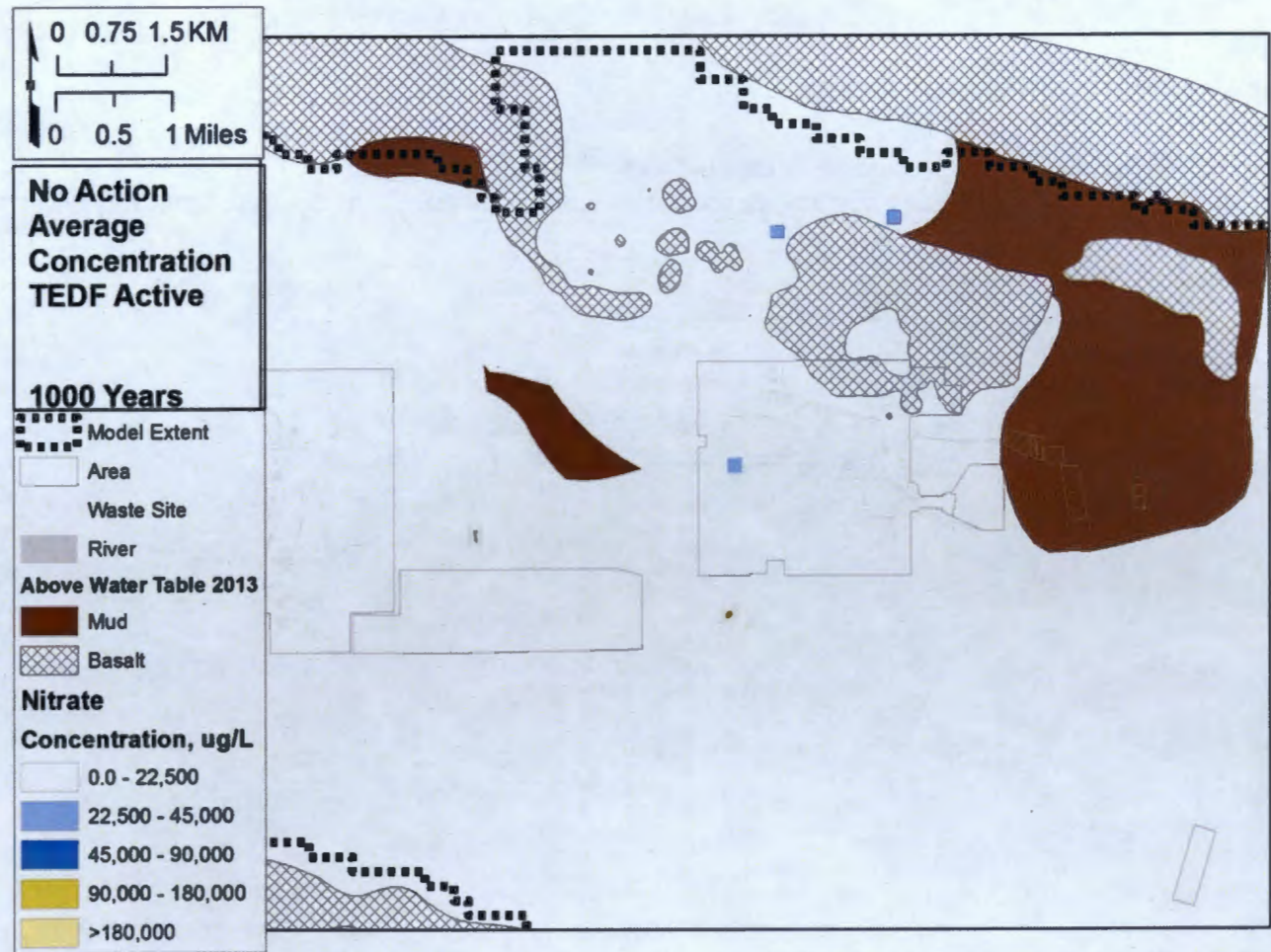


Figure B-185 - Plan view contours of the nitrate plume at simulation time 1000 years based on the TEDF future use simulation using average concentration initial conditions

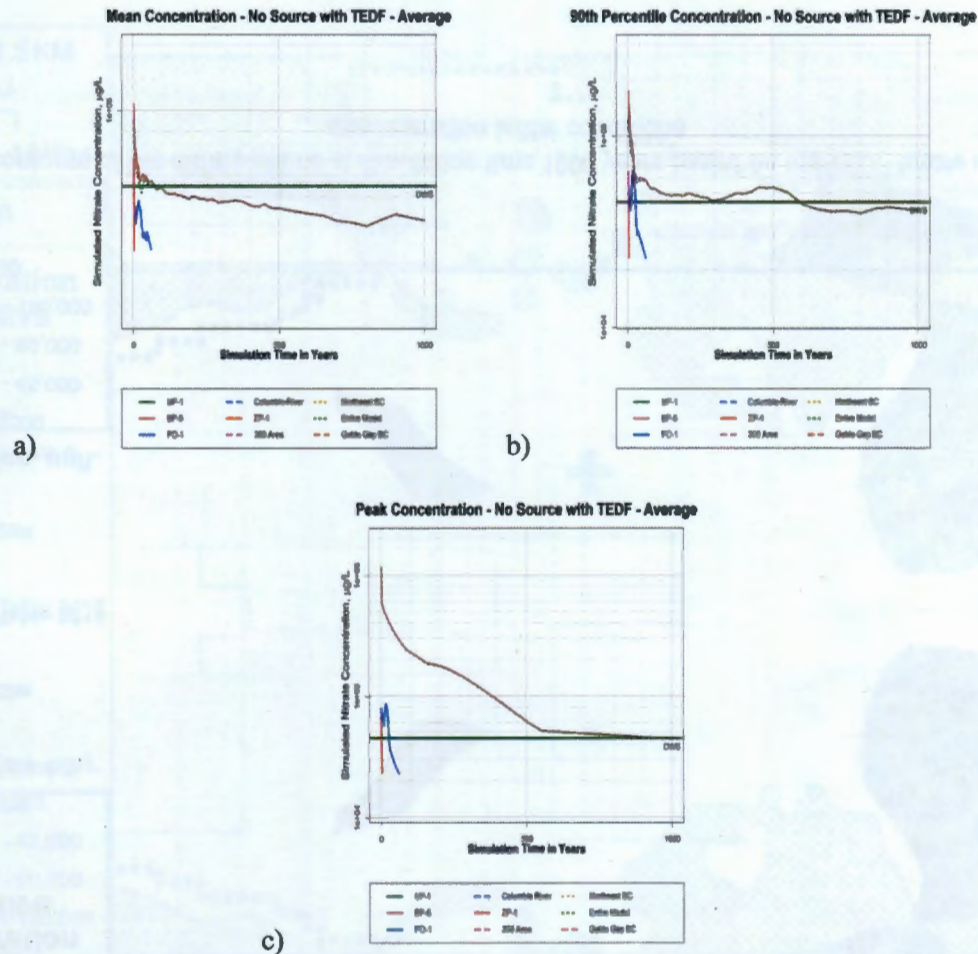


Figure B-186 - Statistical summary of simulated concentration within subregions of the model domain for the nitrate plume for the TEDF future use simulation using average concentration initial conditions.

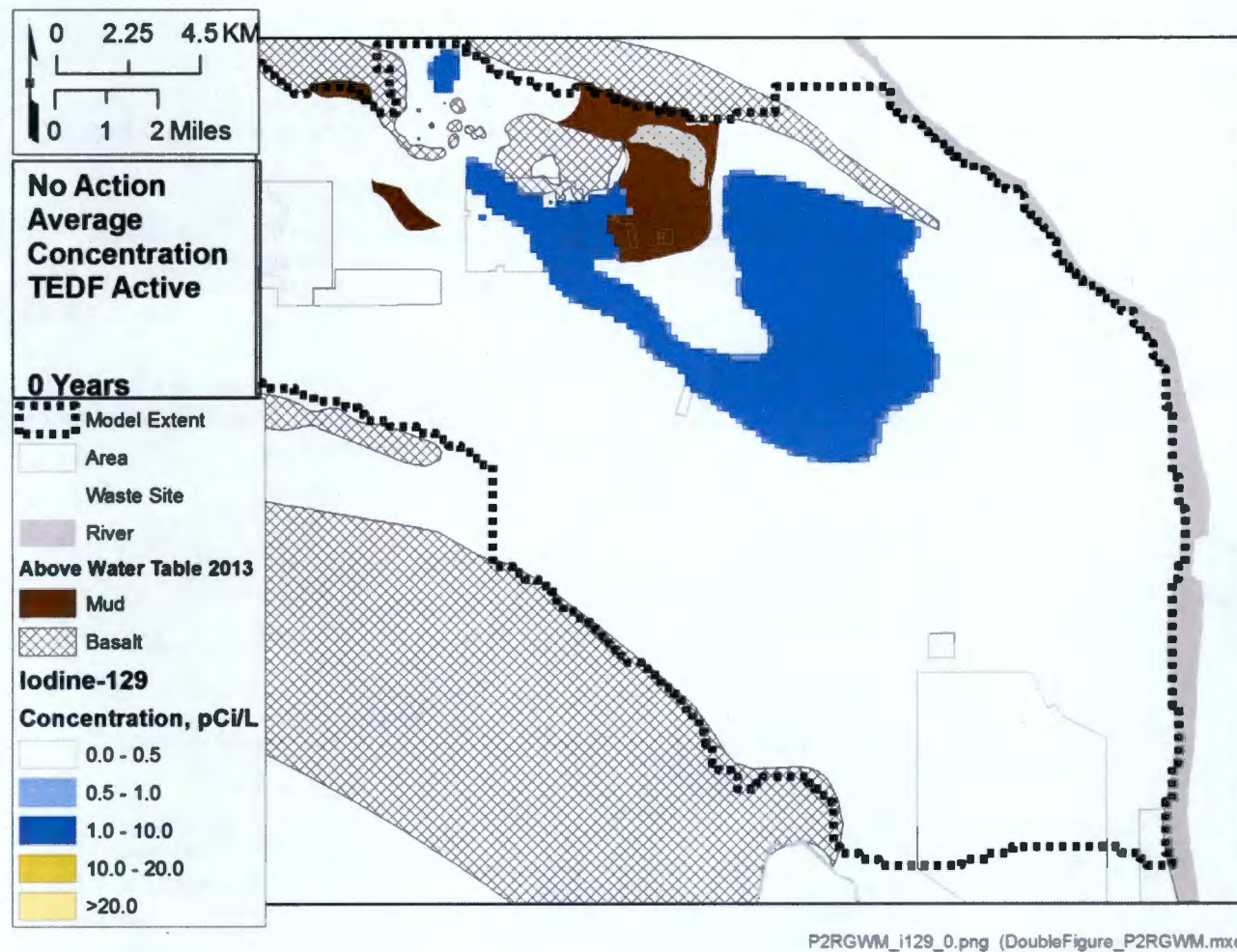


Figure B-187 - Plan view contours of the iodine-129 plume at simulation time 0 years based on the TEDF future use simulation using average concentration initial conditions

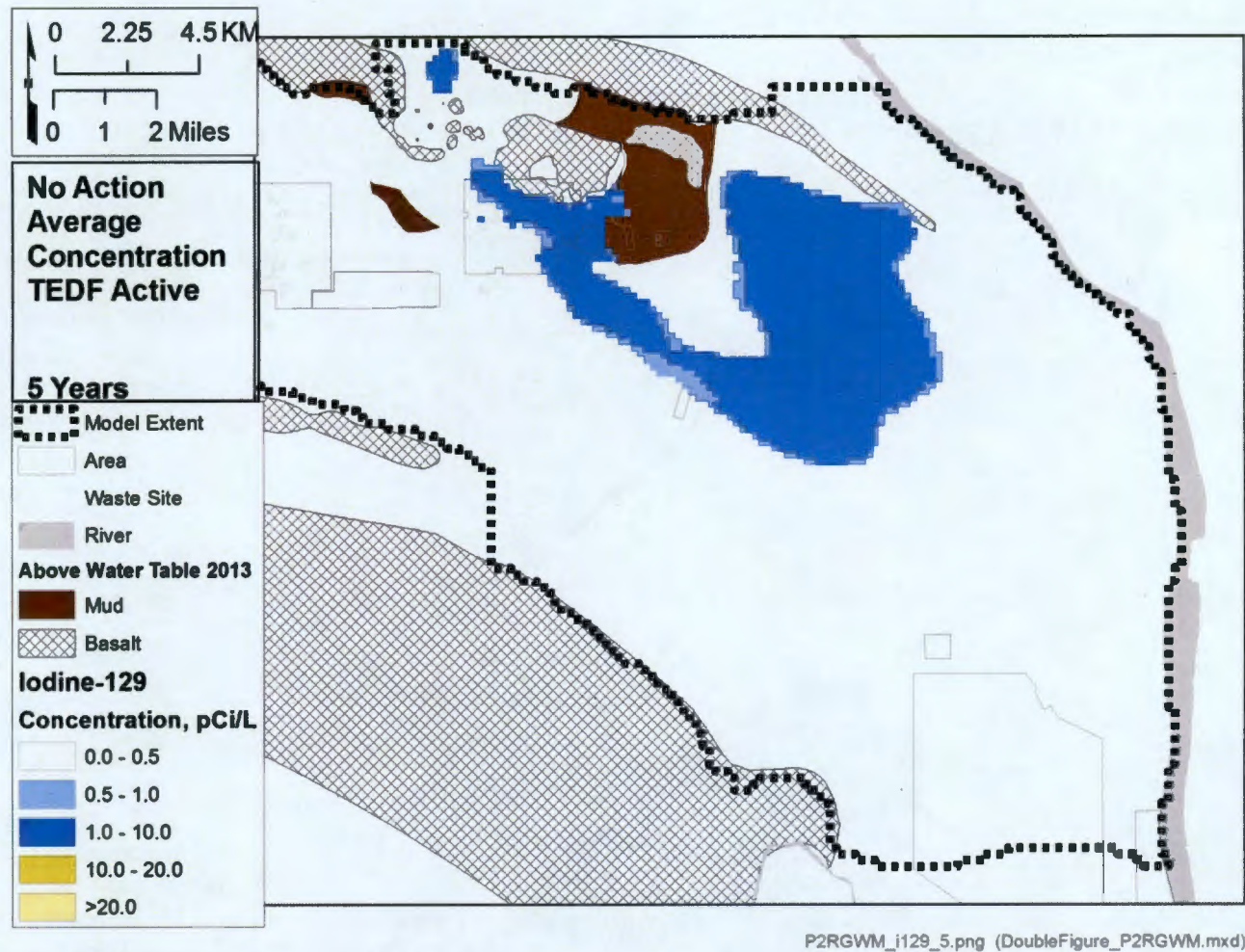


Figure B-188 - Plan view contours of the iodine-129 plume at simulation time 5 years based on the TEDF future use simulation using average concentration initial conditions

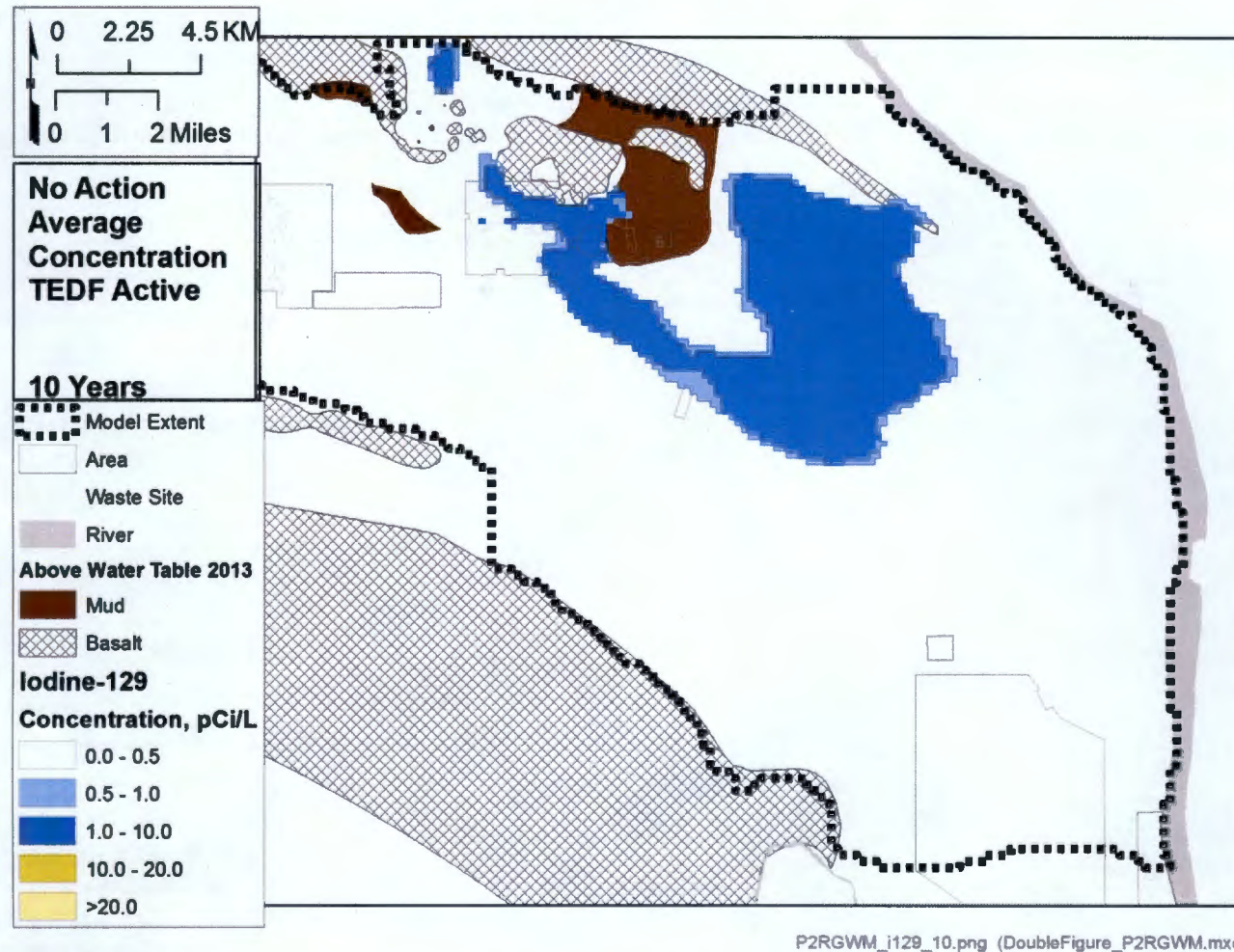


Figure B-189 - Plan view contours of the iodine-129 plume at simulation time 10 years based on the TEDF future use simulation using average concentration initial conditions

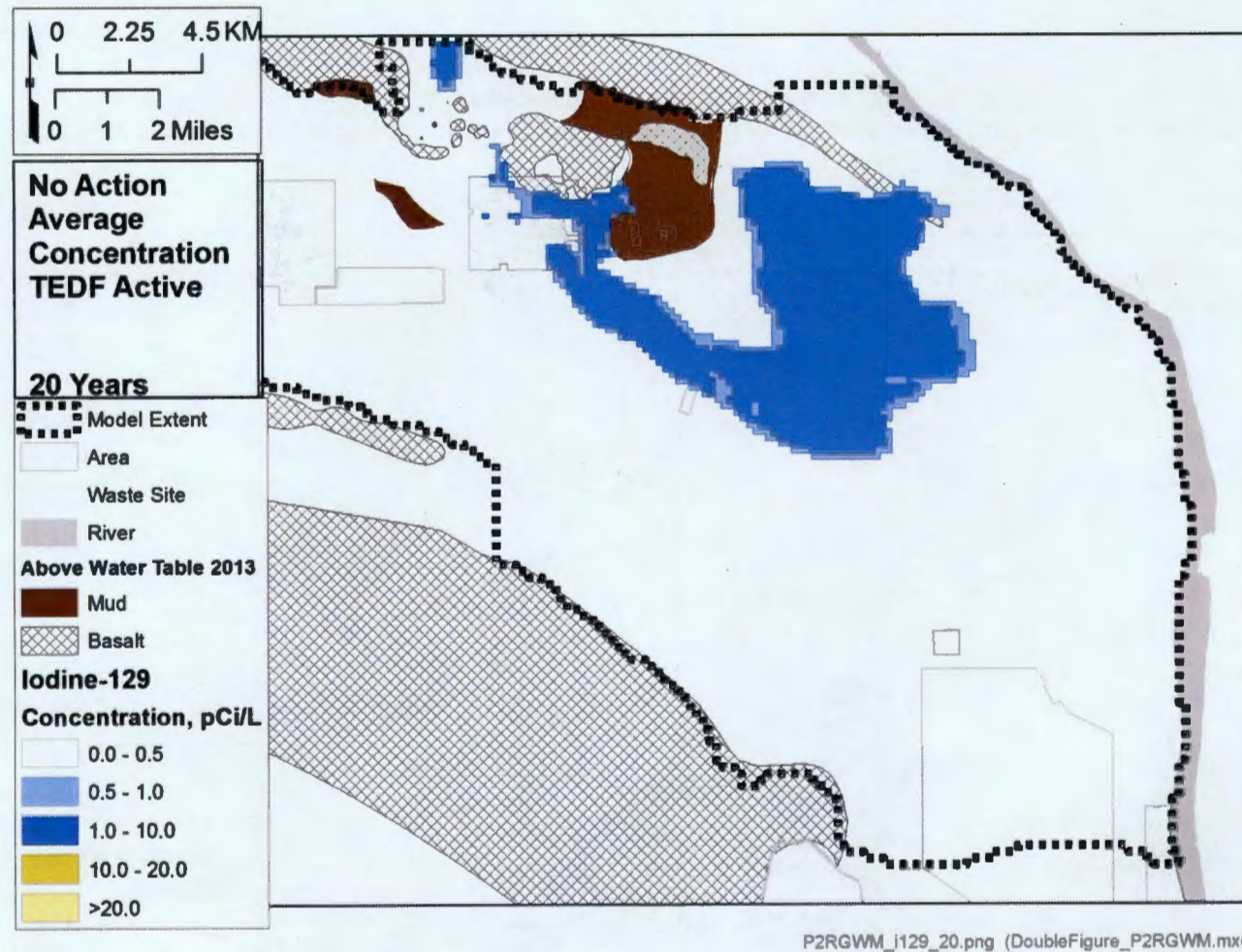
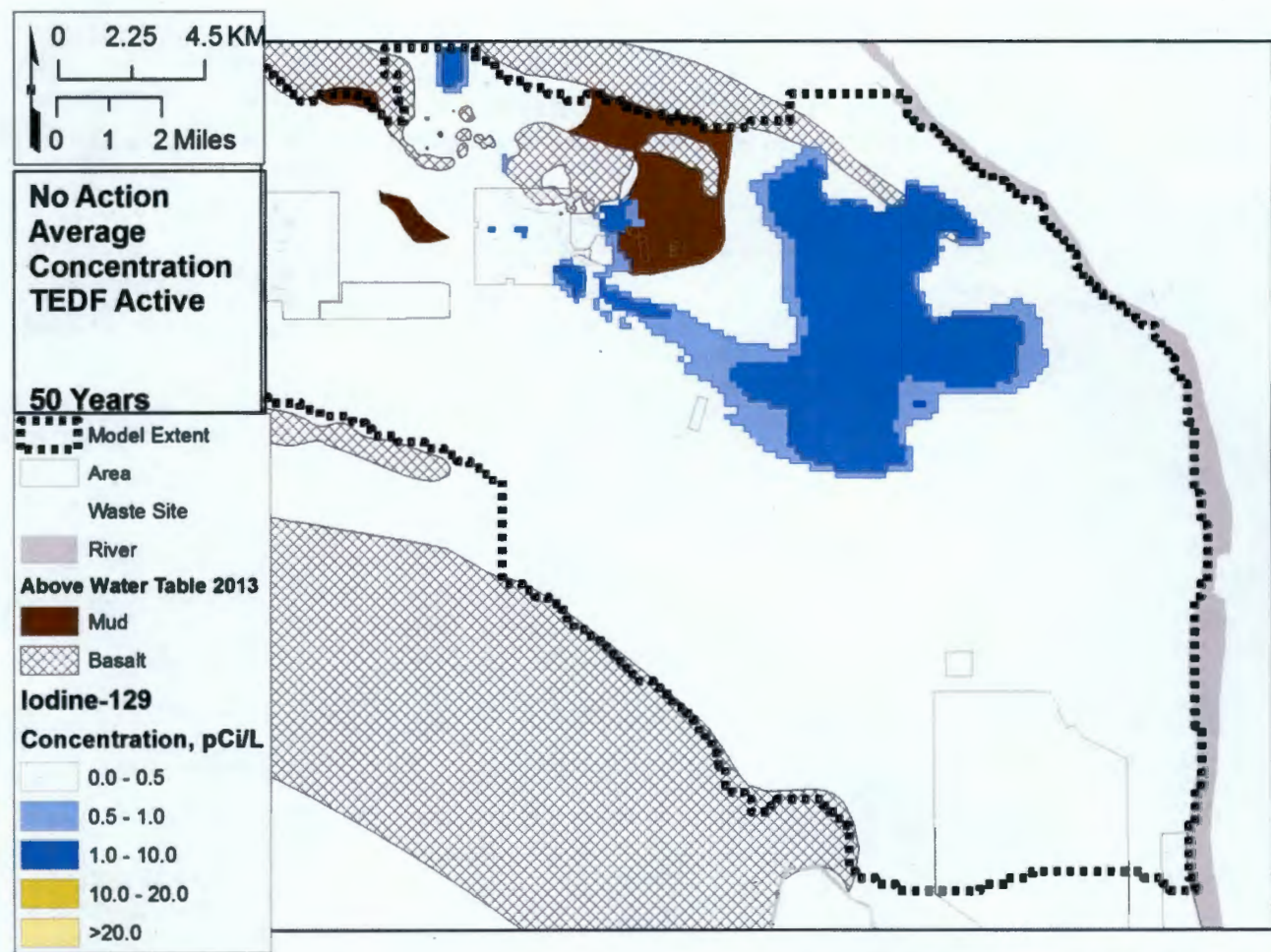


Figure B-190 - Plan view contours of the iodine-129 plume at simulation time 20 years based on the TEDF future use simulation using average concentration initial conditions



P2RGWM_i129_50.png (DoubleFigure_P2RGWM.mxd)

Figure B-191 - Plan view contours of the iodine-129 plume at simulation time 50 years based on the TEDF future use simulation using average concentration initial conditions

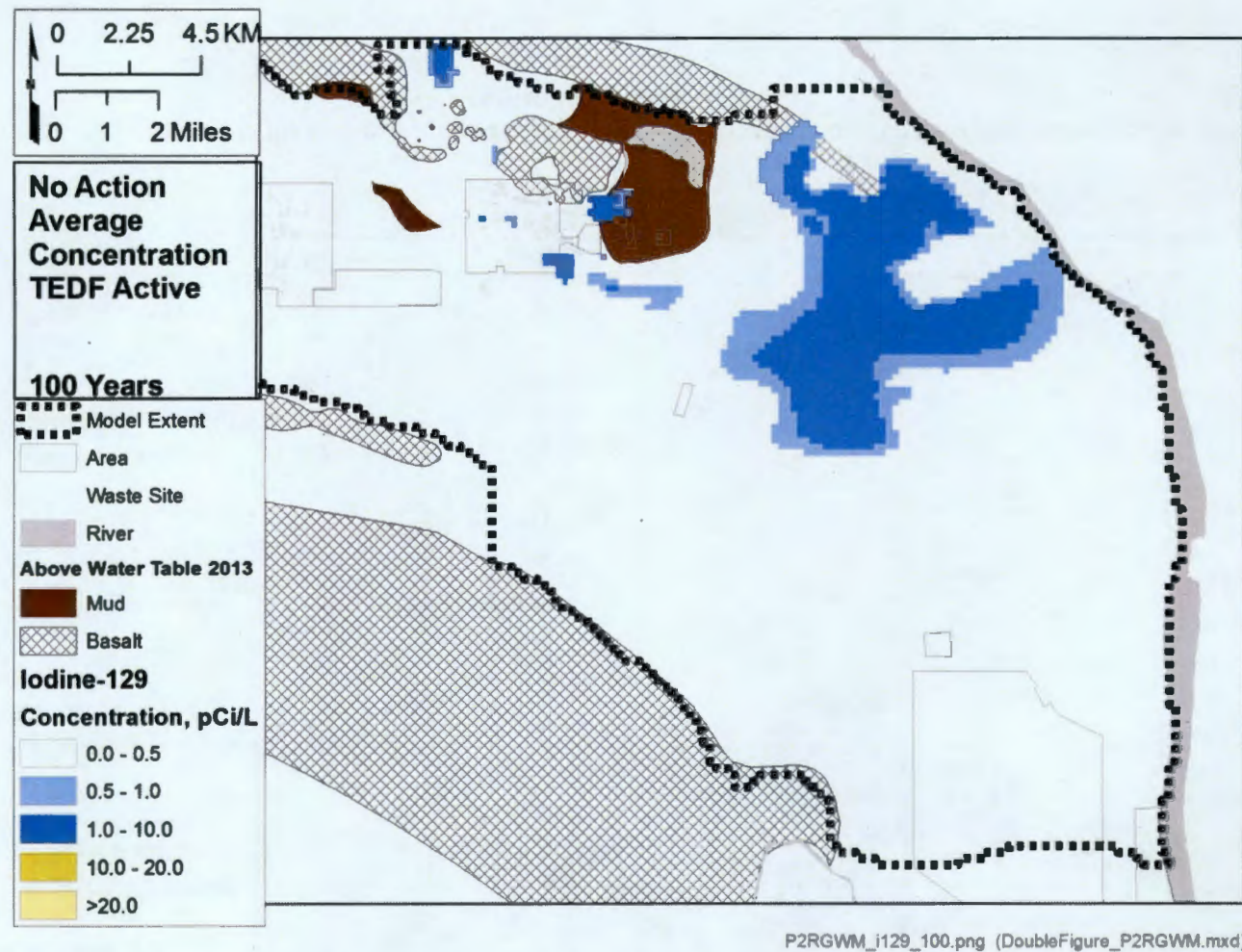


Figure B-192 - Plan view contours of the iodine-129 plume at simulation time 100 years based on the TEDF future use simulation using average concentration initial conditions

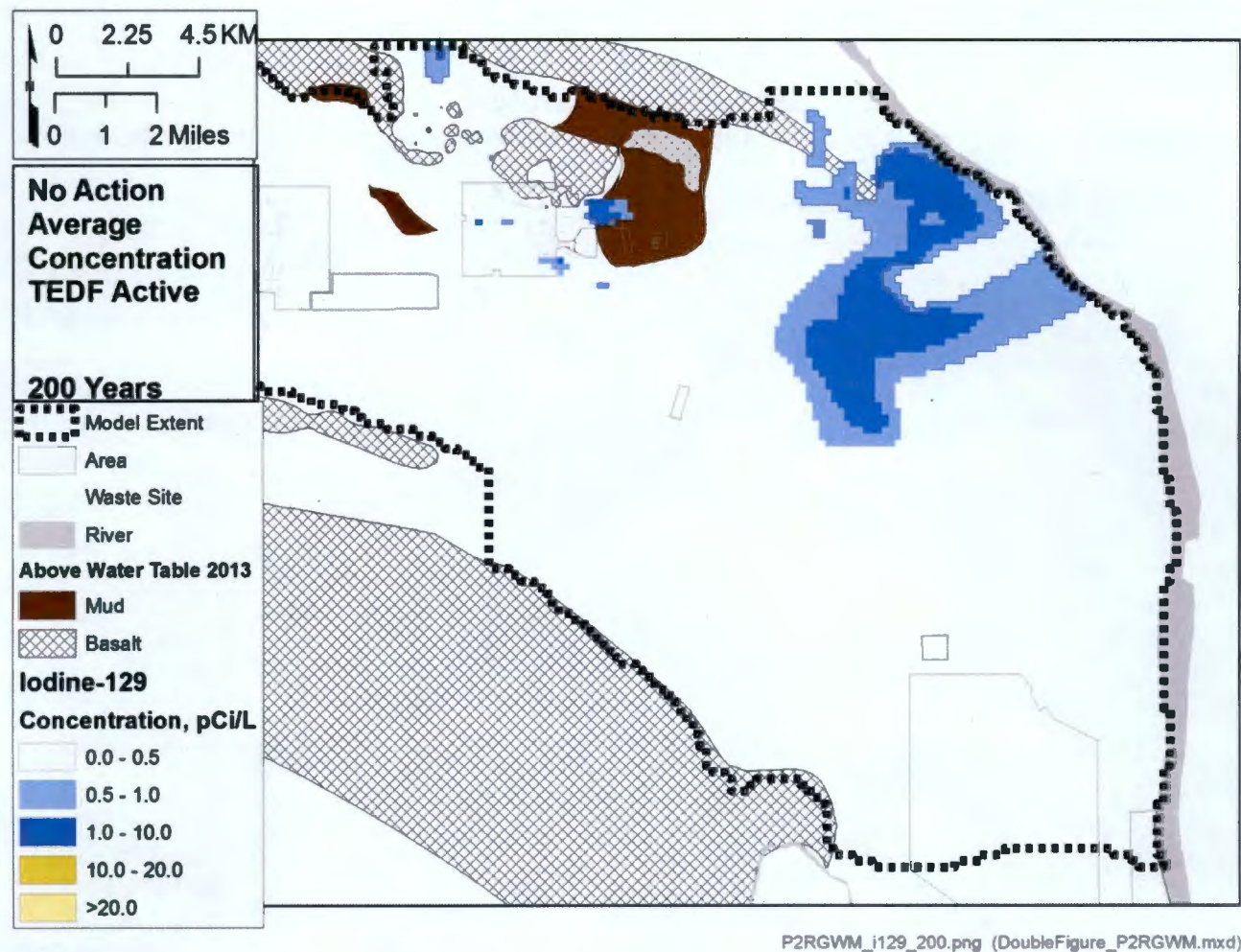


Figure B-193 - Plan view contours of the iodine-129 plume at simulation time 200 years based on the TEDF future use simulation using average concentration initial conditions

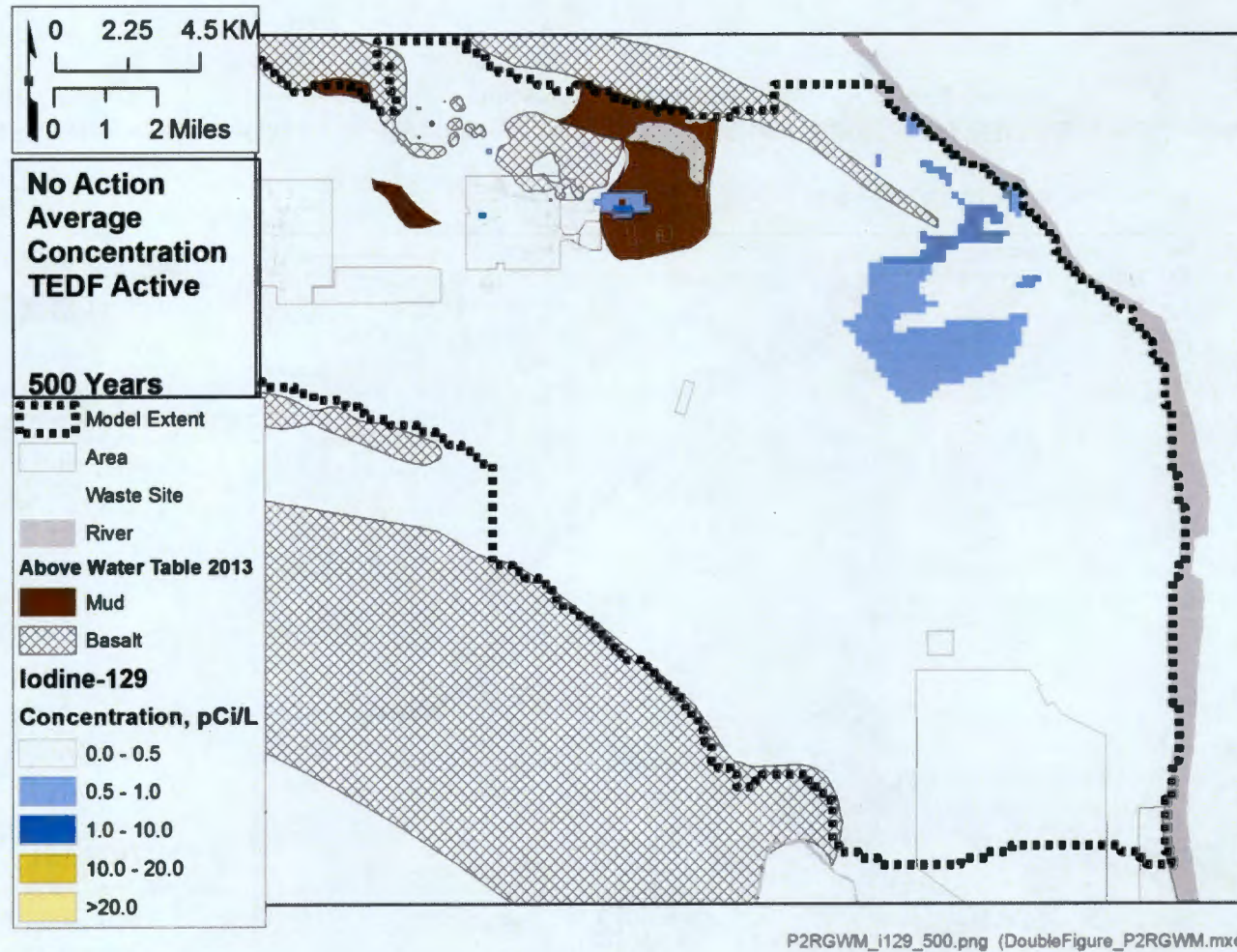


Figure B-194 - Plan view contours of the iodine-129 plume at simulation time 500 years based on the TEDF future use simulation using average concentration initial conditions

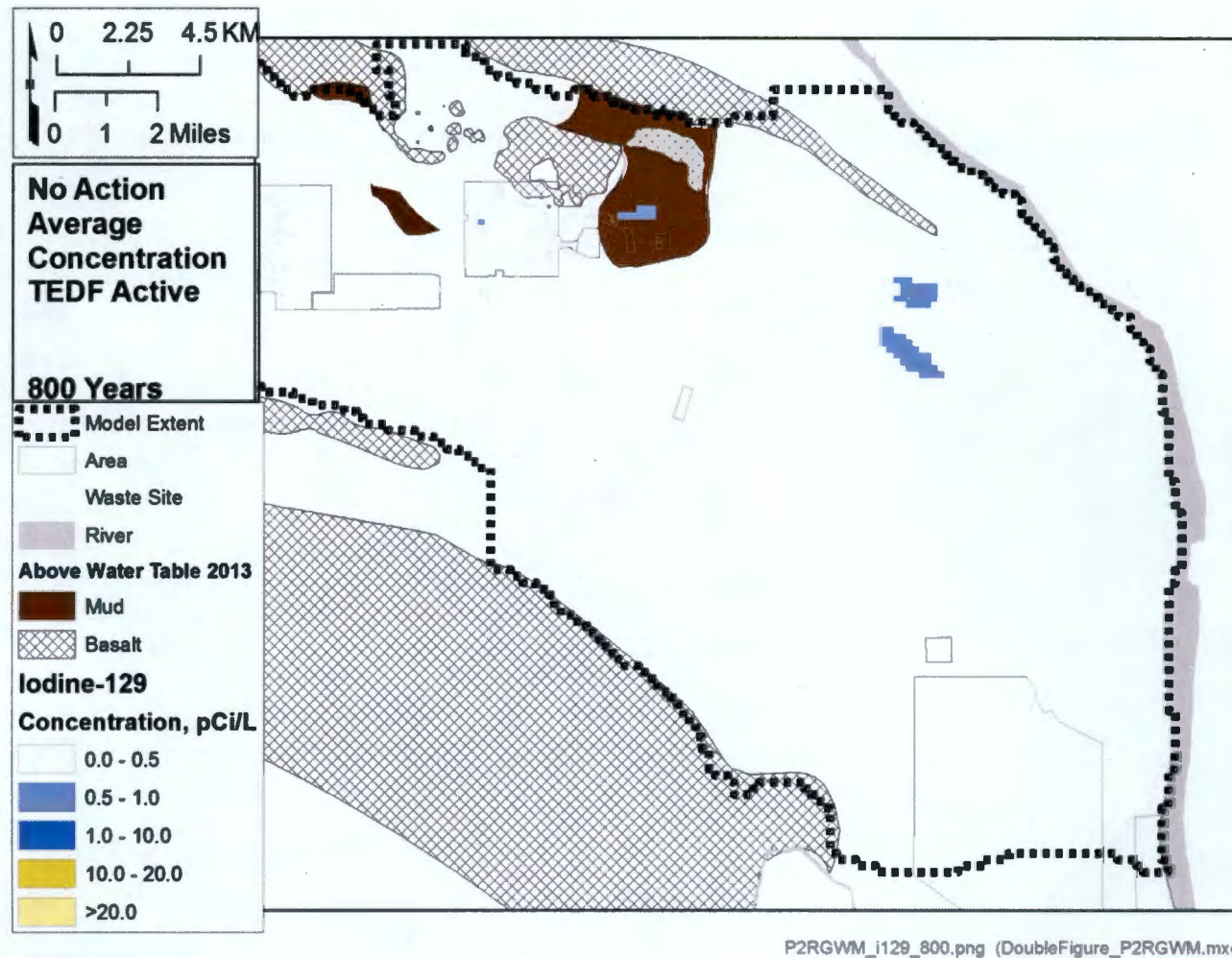


Figure B-195 - Plan view contours of the iodine-129 plume at simulation time 800 years based on the TEDF future use simulation using average concentration initial conditions

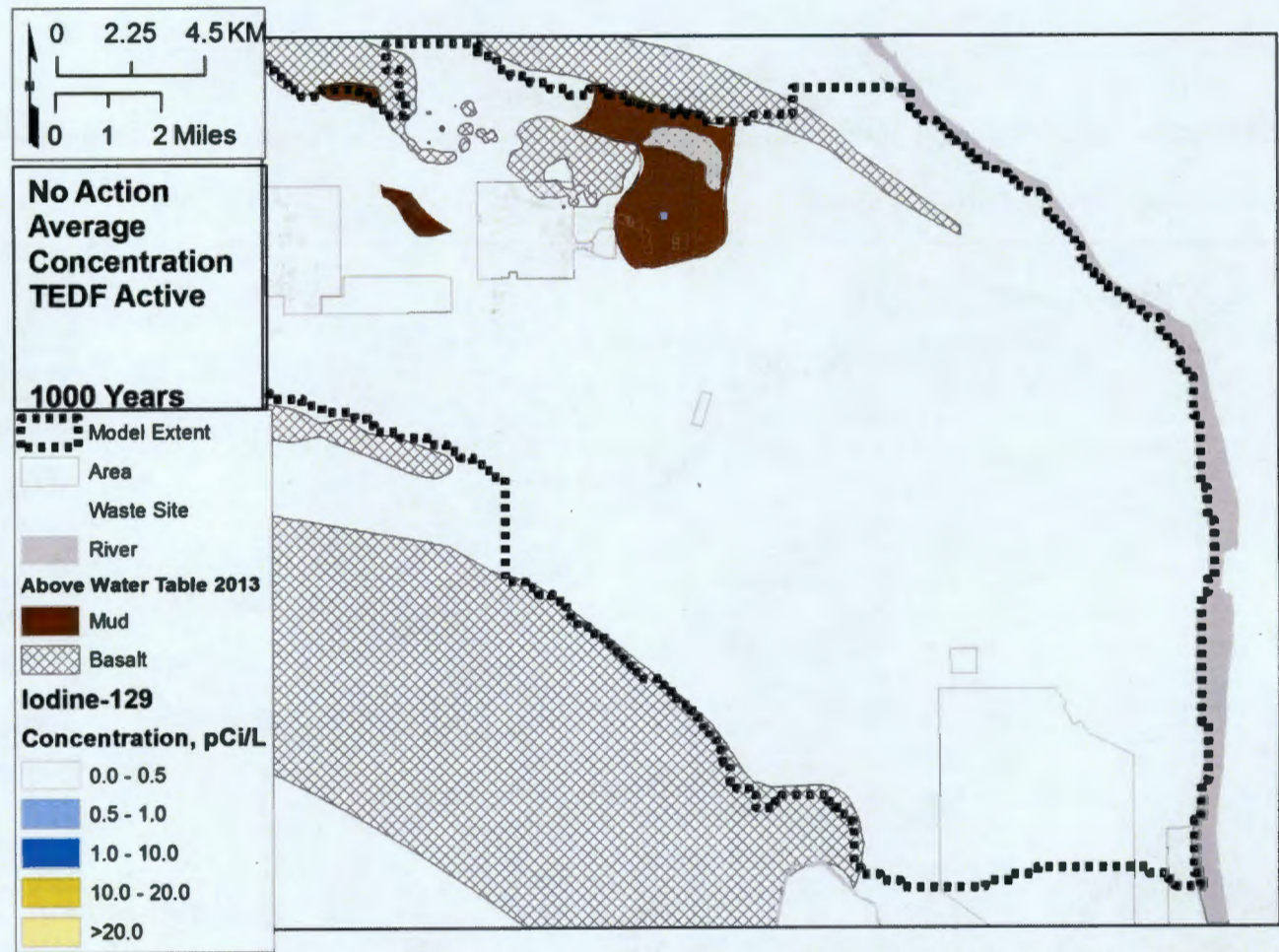


Figure B-196 - Plan view contours of the iodine-129 plume at simulation time 1000 years based on the TEDF future use simulation using average concentration initial conditions

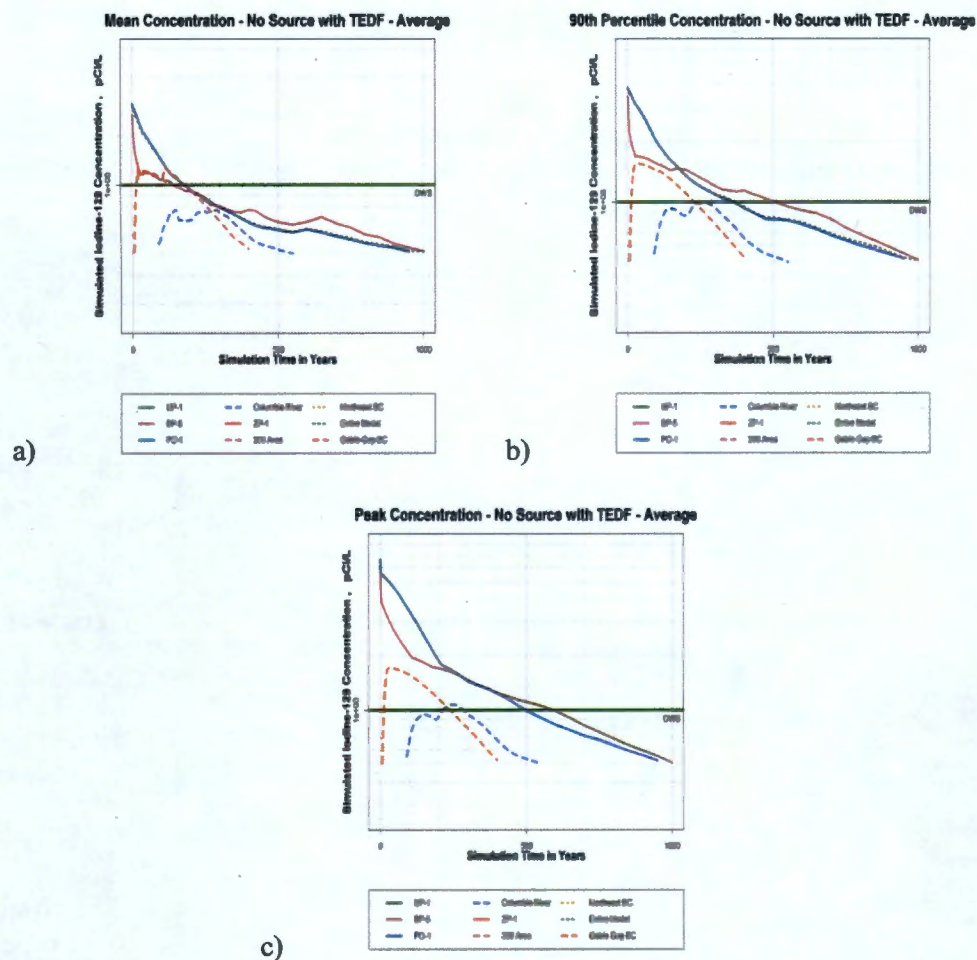


Figure B-197 - Statistical summary of simulated concentration within subregions of the model domain for the iodine-129 plume for the TEDF future use simulation using average concentration initial conditions.

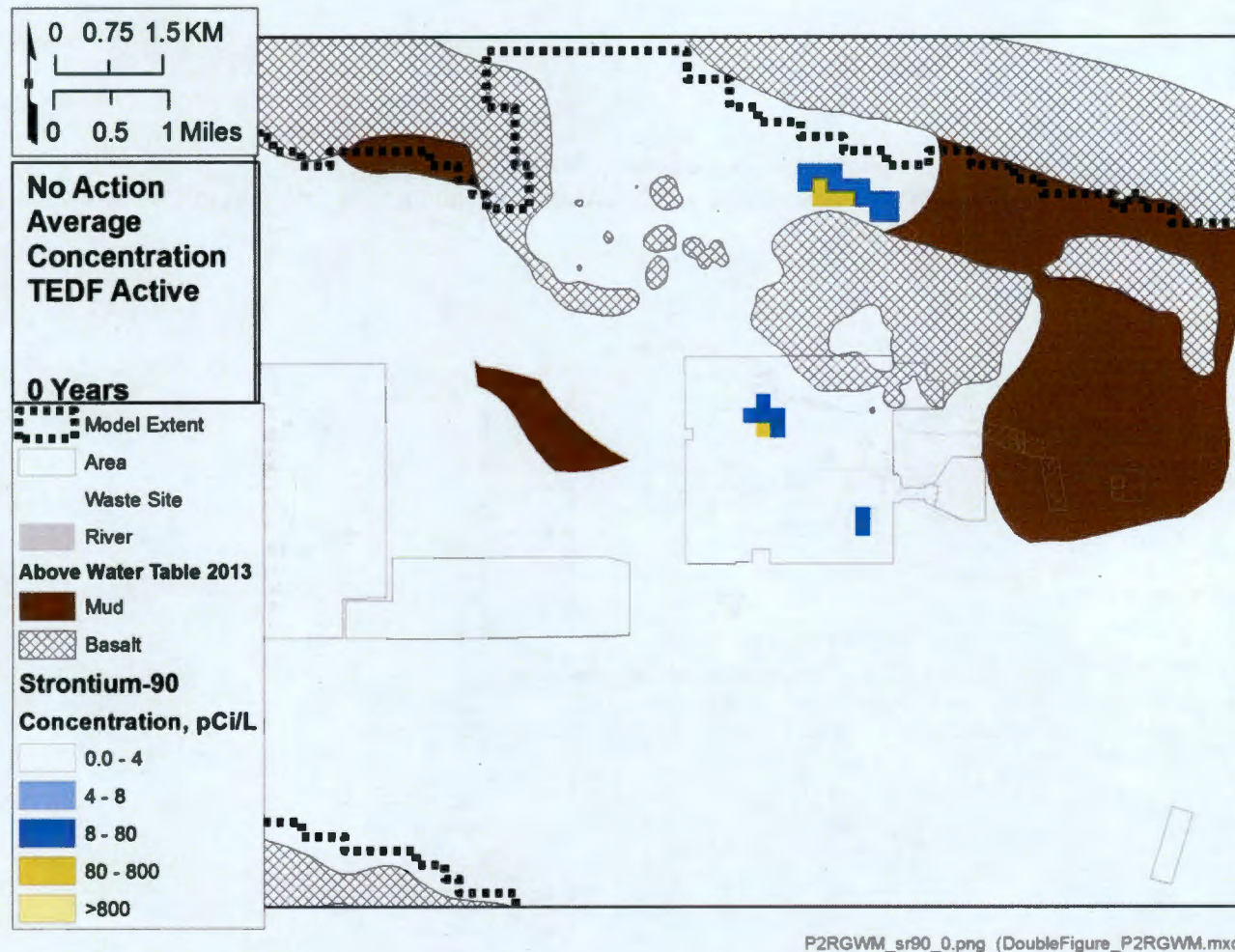
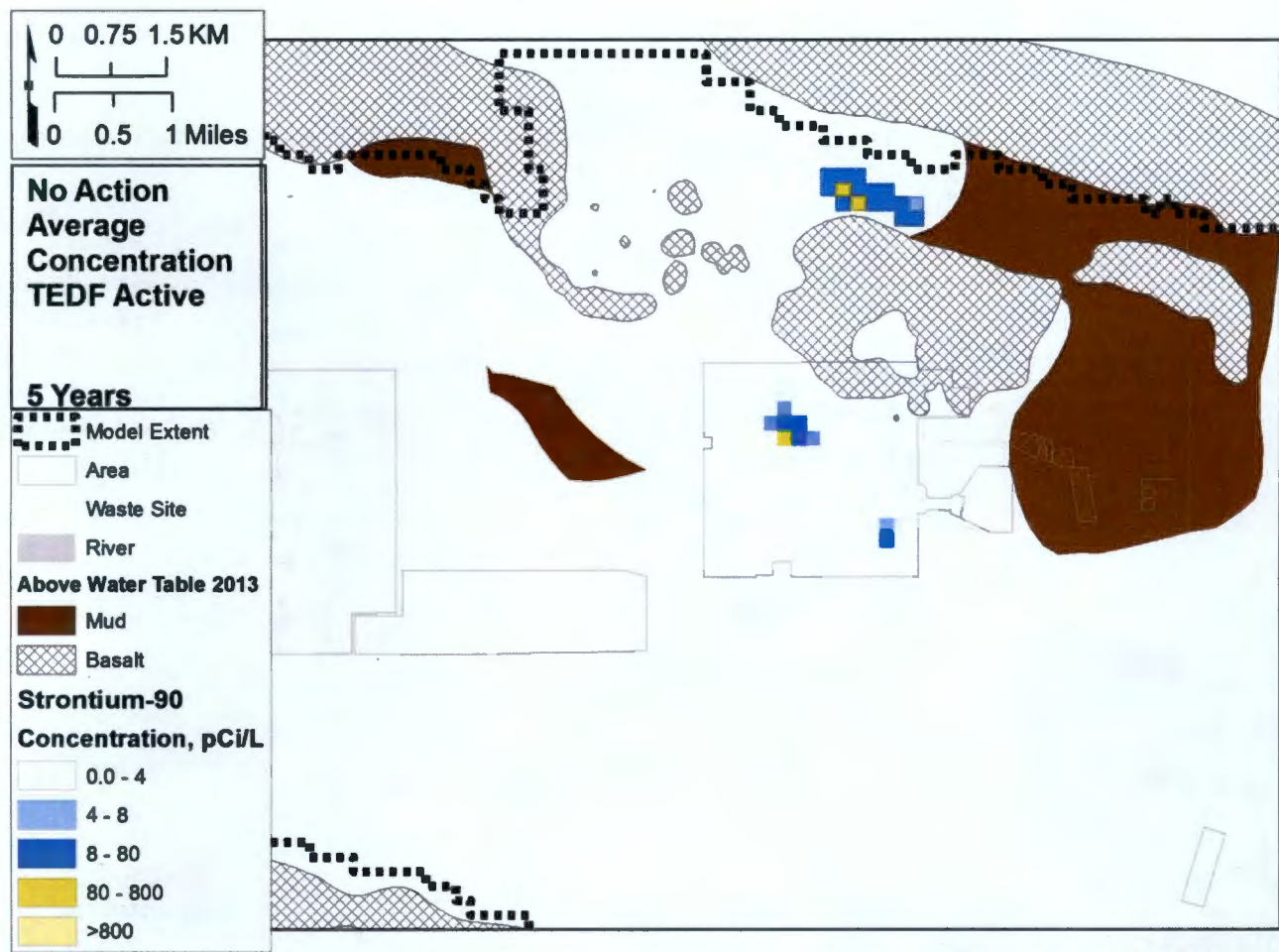


Figure B-198 - Plan view contours of the strontium-90 plume at simulation time 0 years based on the TEDF future use simulation using average concentration initial conditions



P2RGWM_sr90_5.png (DoubleFigure_P2RGWM.mxd)

Figure B-199 - Plan view contours of the strontium-90 plume at simulation time 5 years based on the TEDF future use simulation using average concentration initial conditions

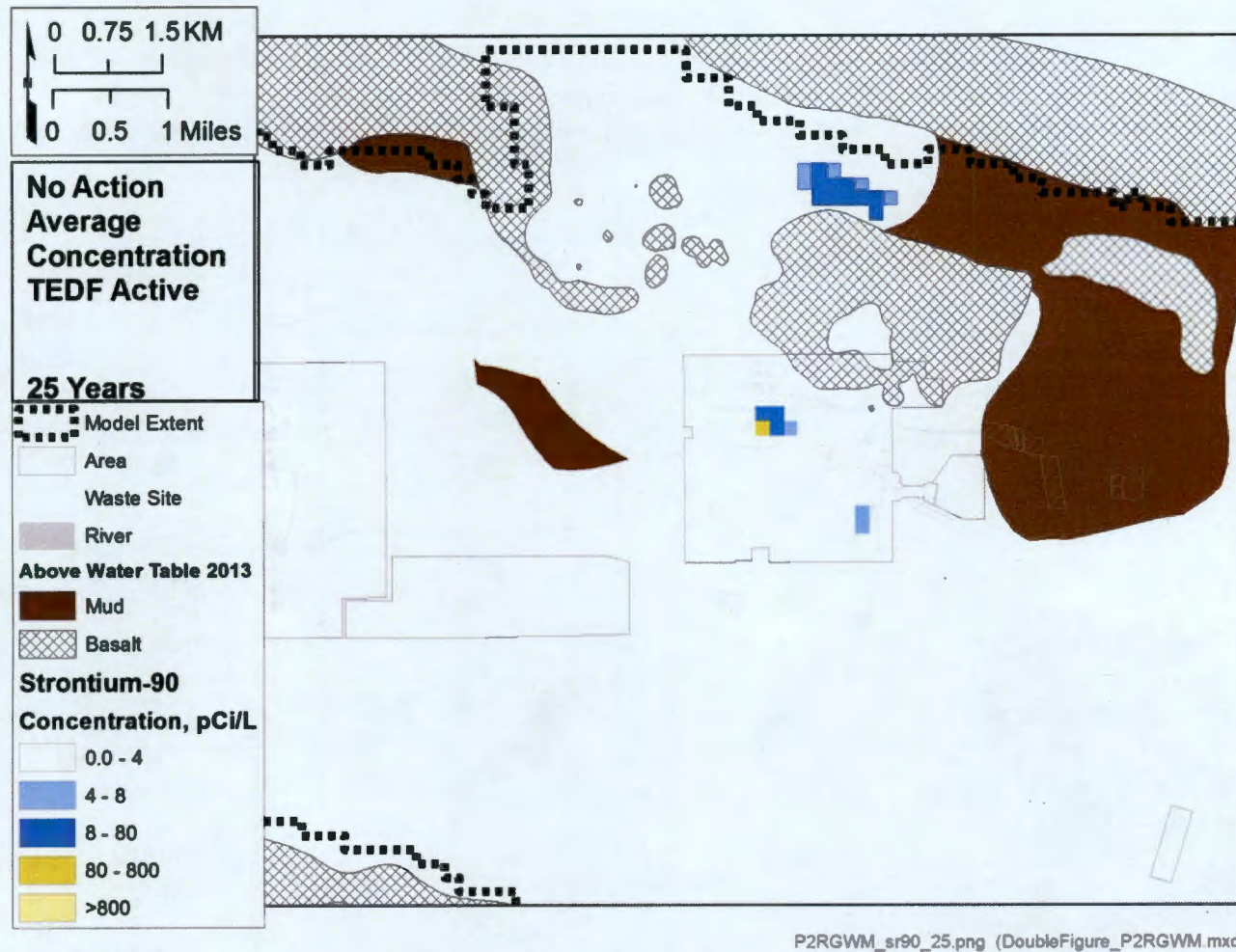


Figure B-200 - Plan view contours of the strontium-90 plume at simulation time 25 years based on the TEDF future use simulation using average concentration initial conditions

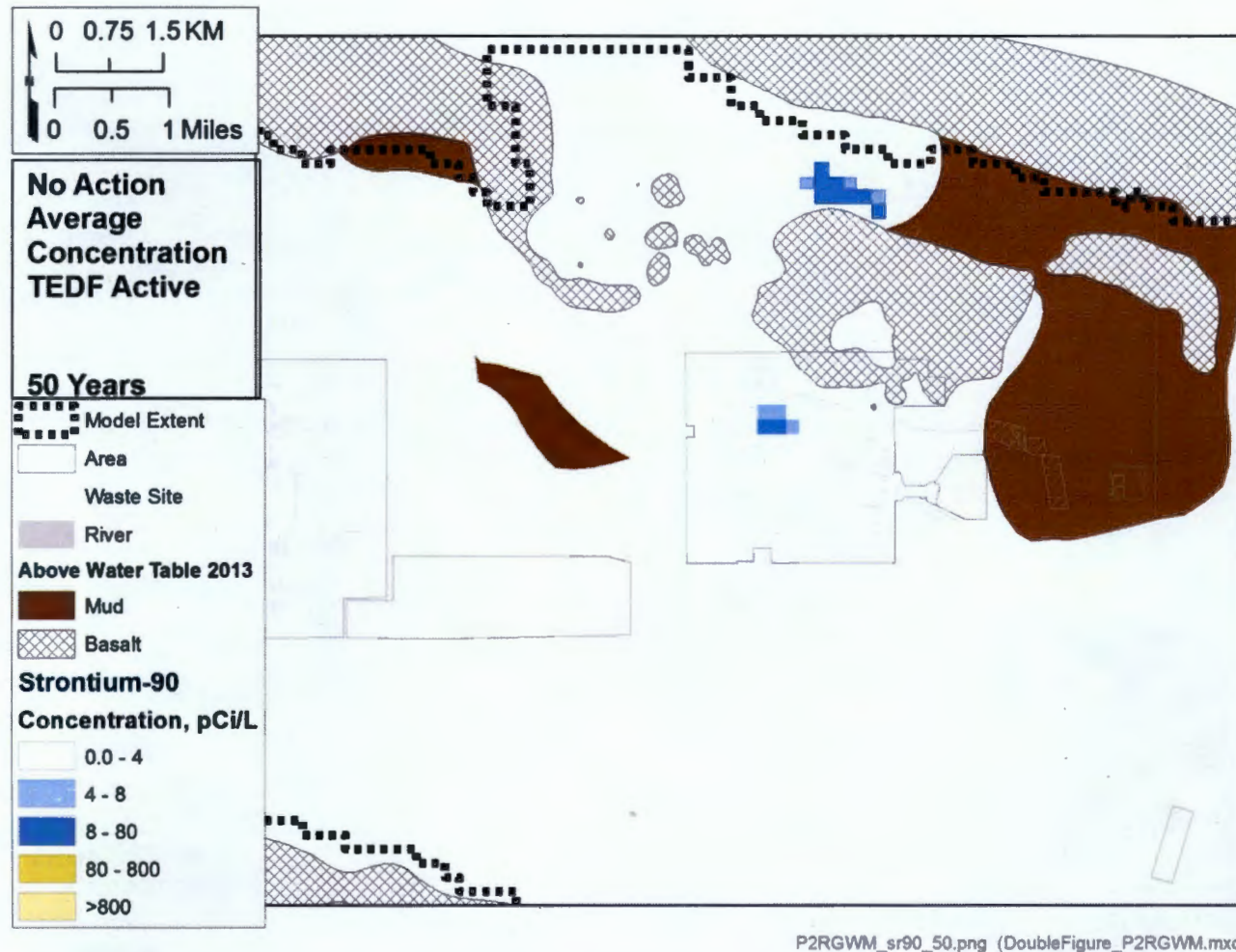


Figure B-201 - Plan view contours of the strontium-90 plume at simulation time 50 years based on the TEDF future use simulation using average concentration initial conditions

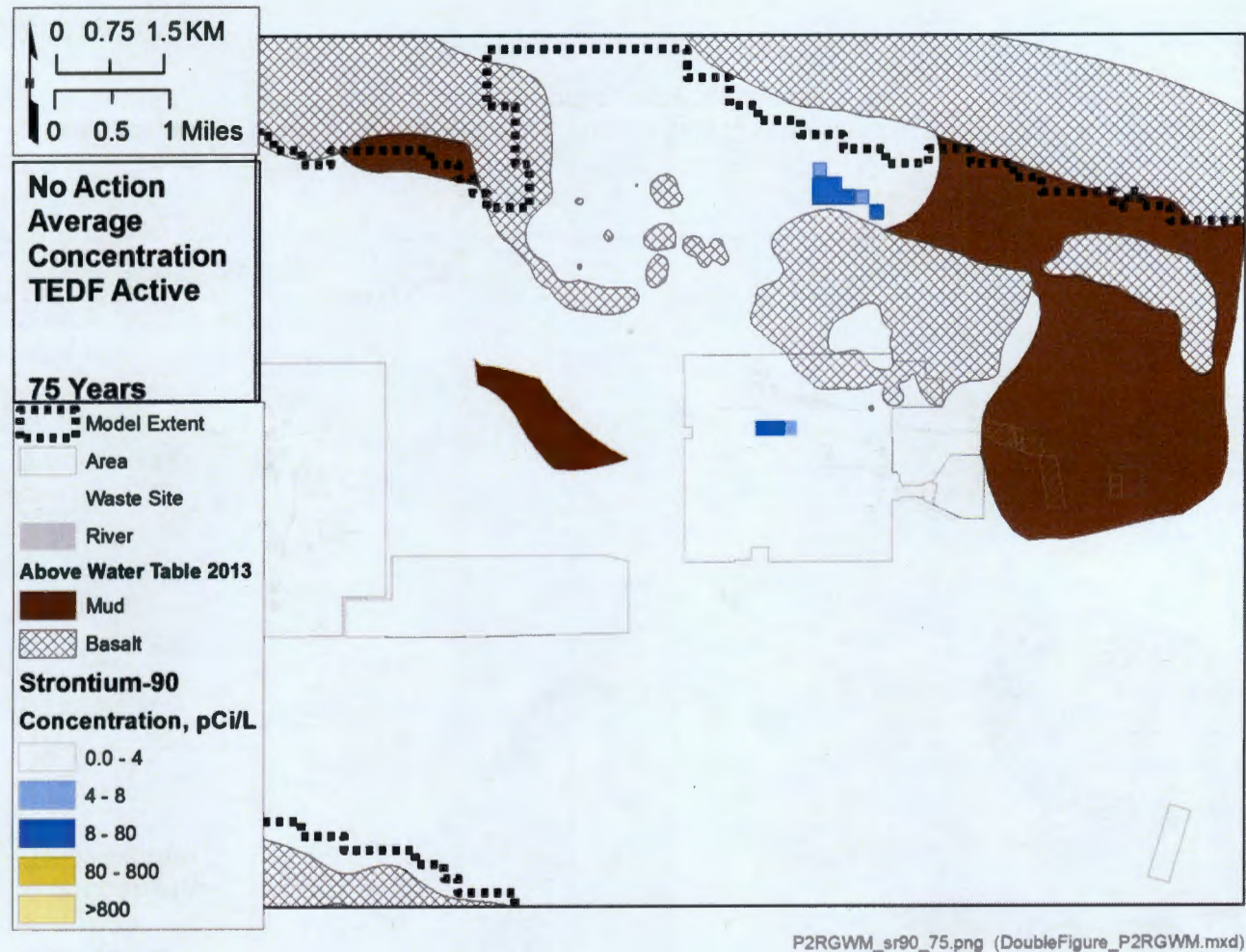
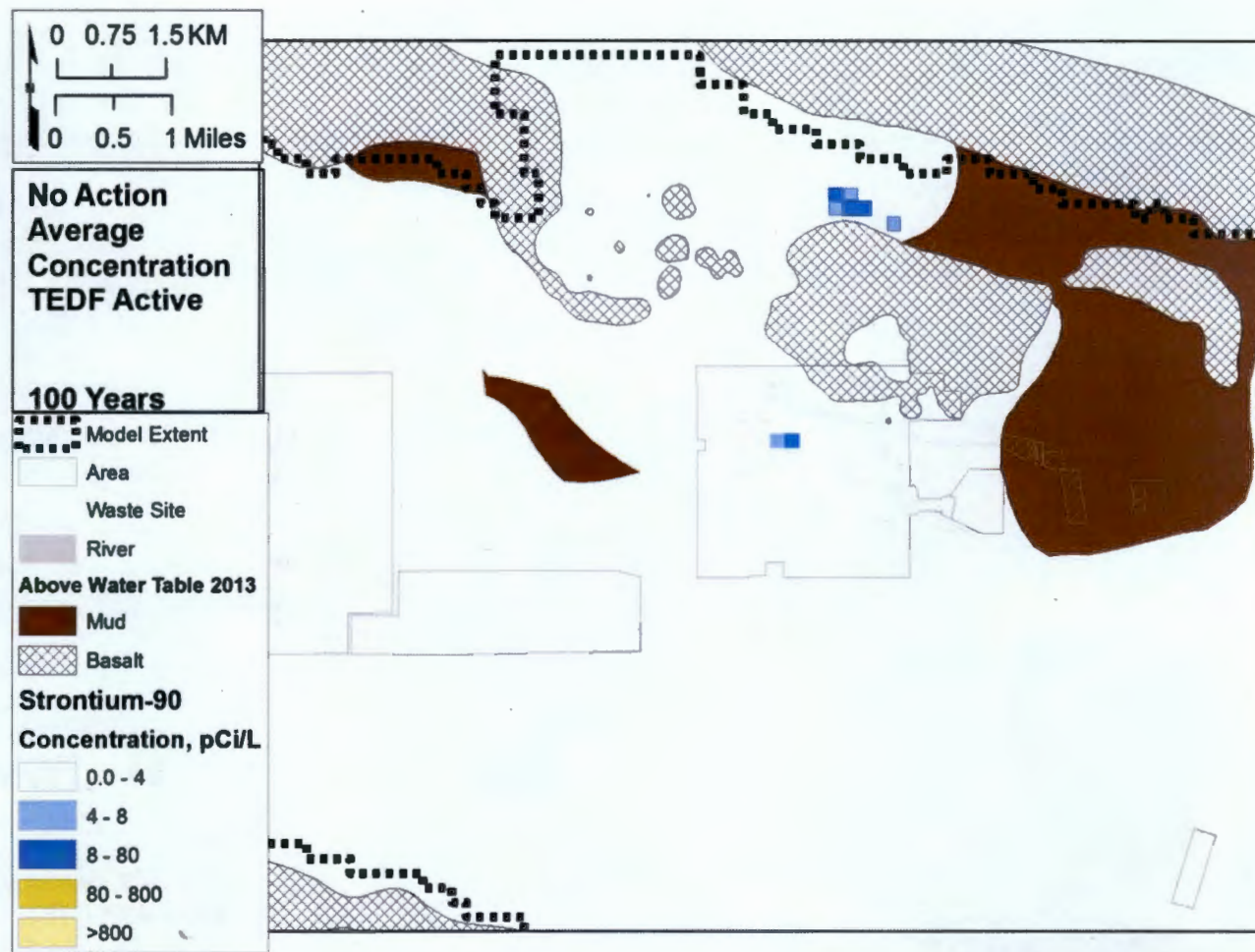
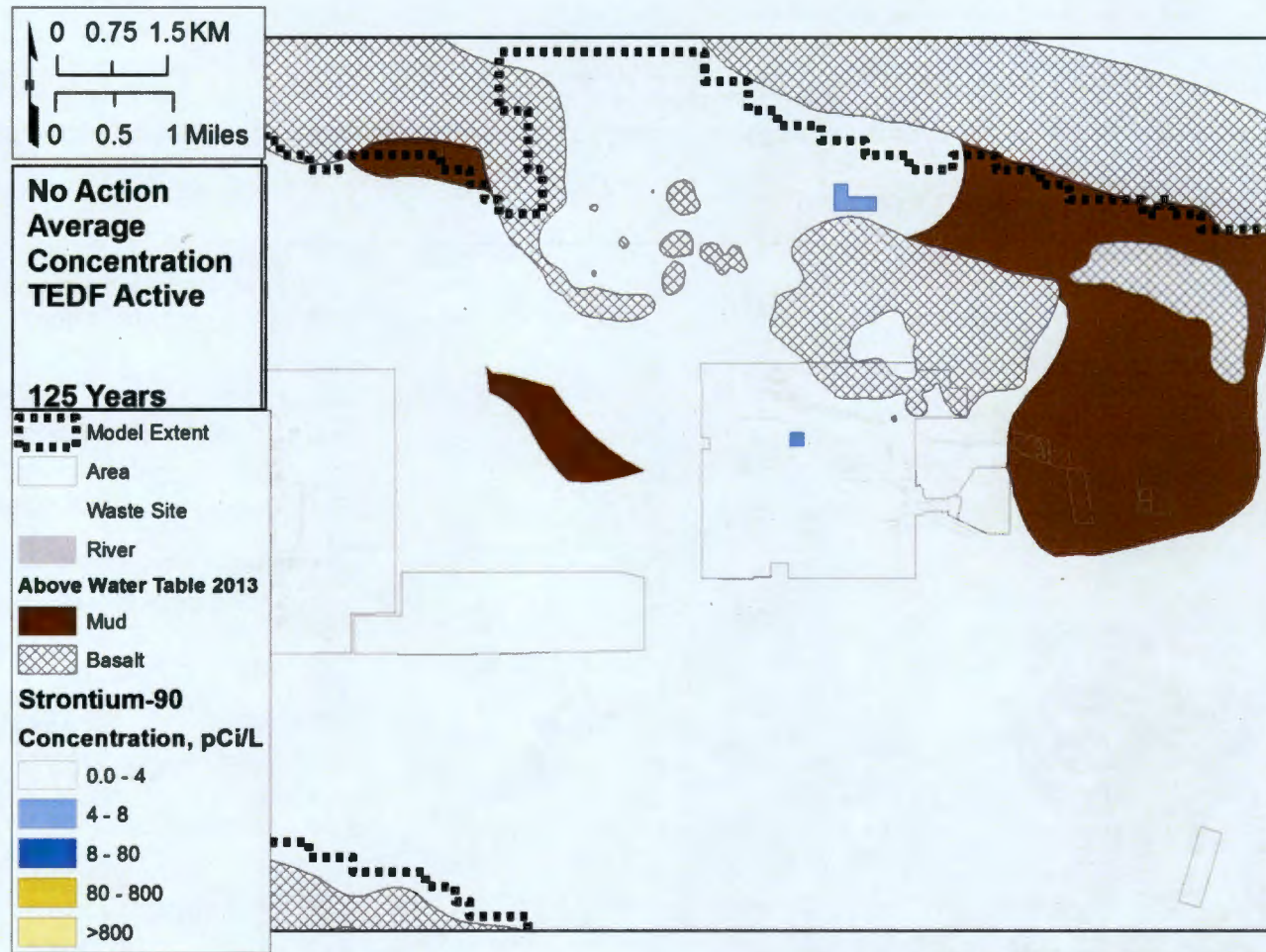


Figure B-202 - Plan view contours of the strontium-90 plume at simulation time 75 years based on the TEDF future use simulation using average concentration initial conditions



P2RGWM_sr90_100.png (DoubleFigure_P2RGWM.mxd)

Figure B-203 - Plan view contours of the strontium-90 plume at simulation time 100 years based on the TEDF future use simulation using average concentration initial conditions



P2RGWM_sr90_125.png (DoubleFigure_P2RGWM.mxd)

Figure B-204 - Plan view contours of the strontium-90 plume at simulation time 125 years based on the TEDF future use simulation using average concentration initial conditions

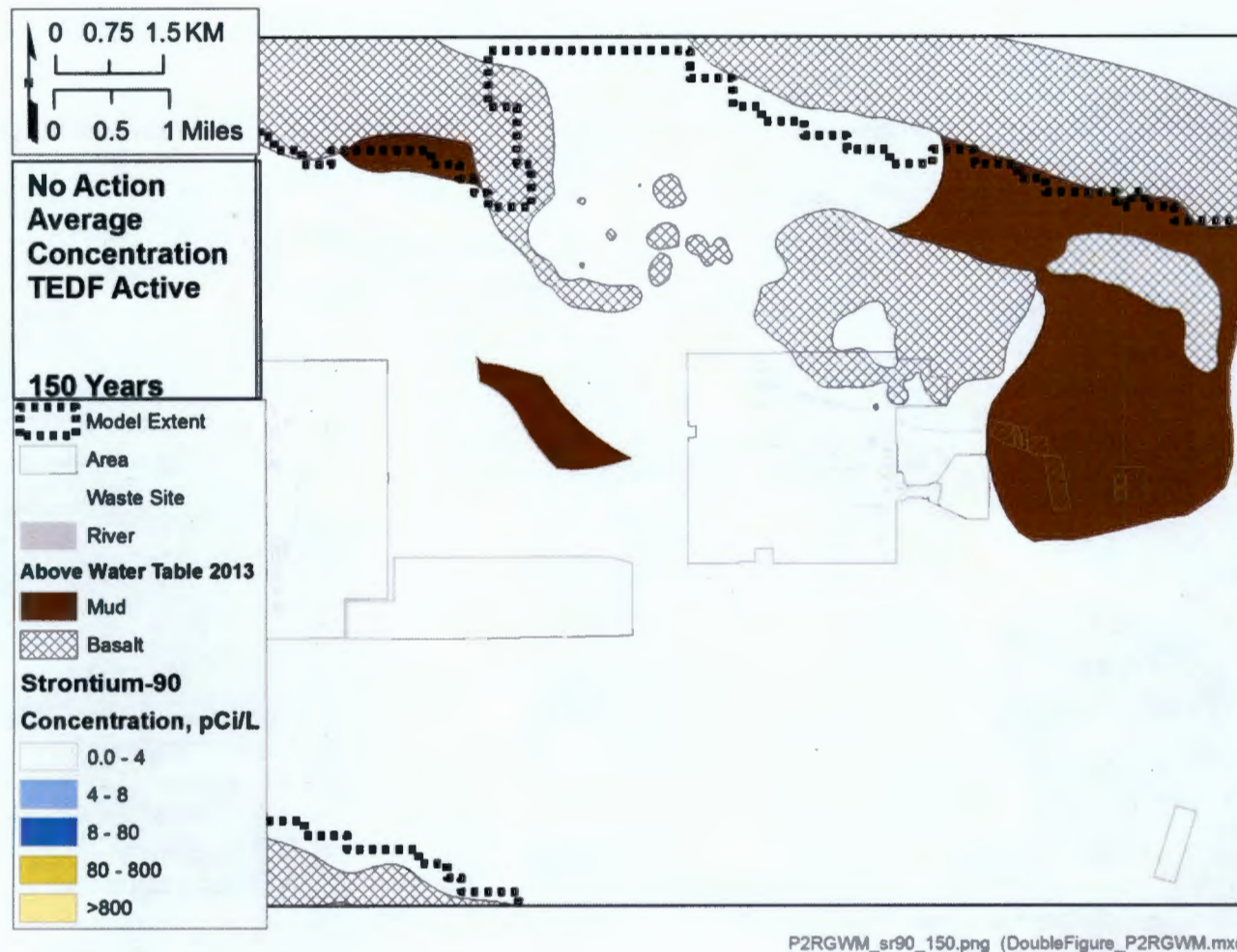


Figure B-205 - Plan view contours of the strontium-90 plume at simulation time 150 years based on the TEDF future use simulation using average concentration initial conditions

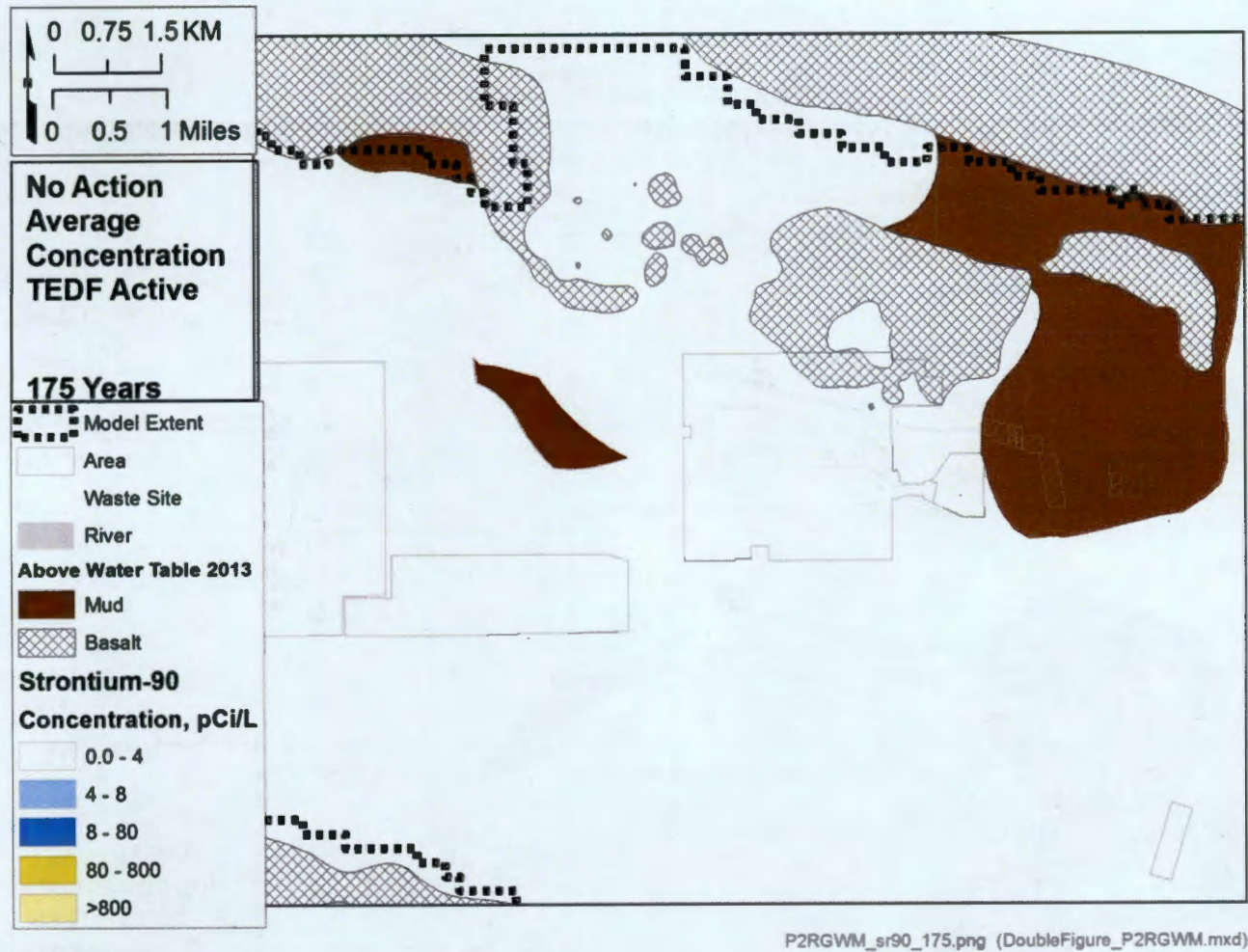


Figure B-206 - Plan view contours of the strontium-90 plume at simulation time 175 years based on the TEDF future use simulation using average concentration initial conditions

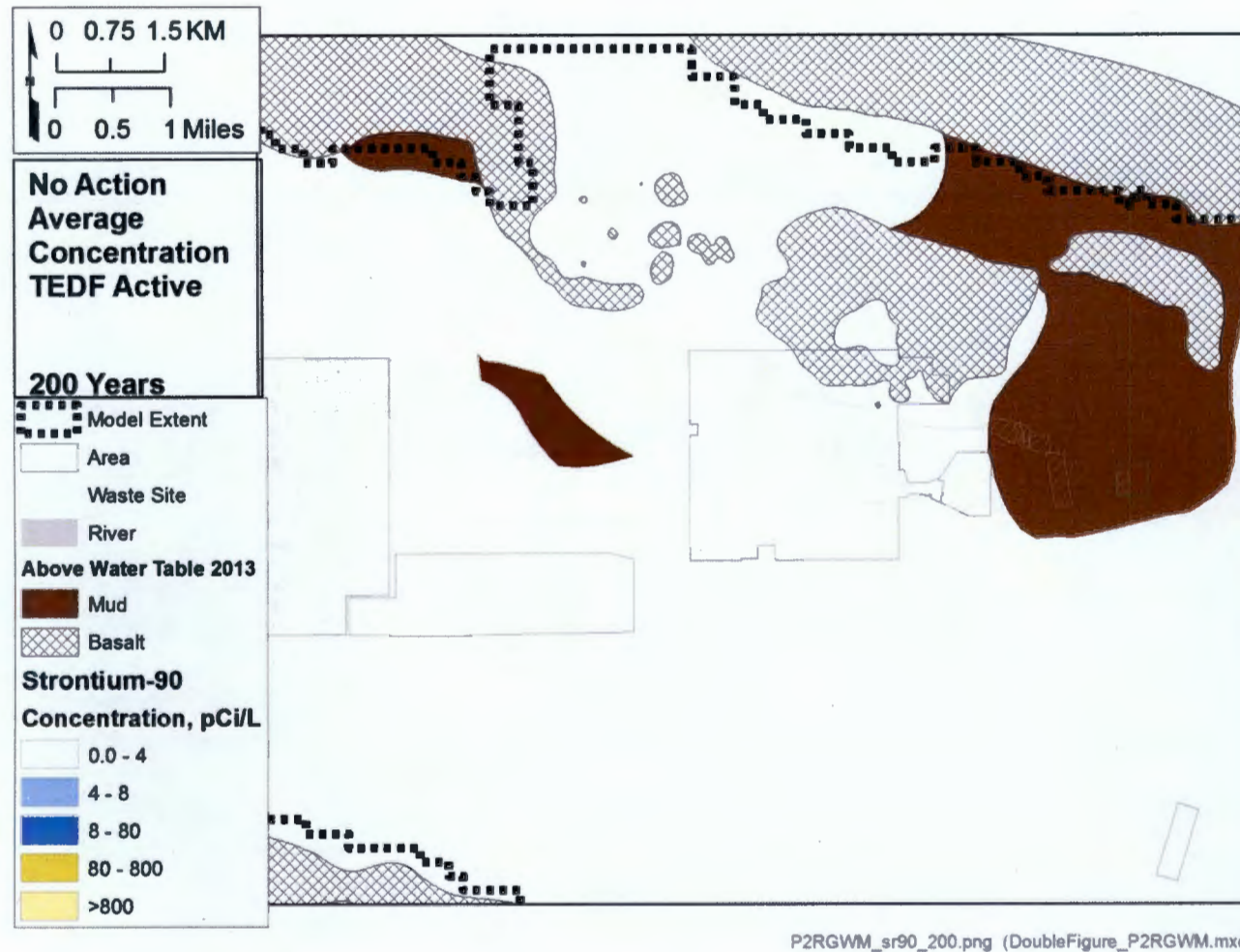


Figure B-207 - Plan view contours of the strontium-90 plume at simulation time 200 years based on the TEDF future use simulation using average concentration initial conditions

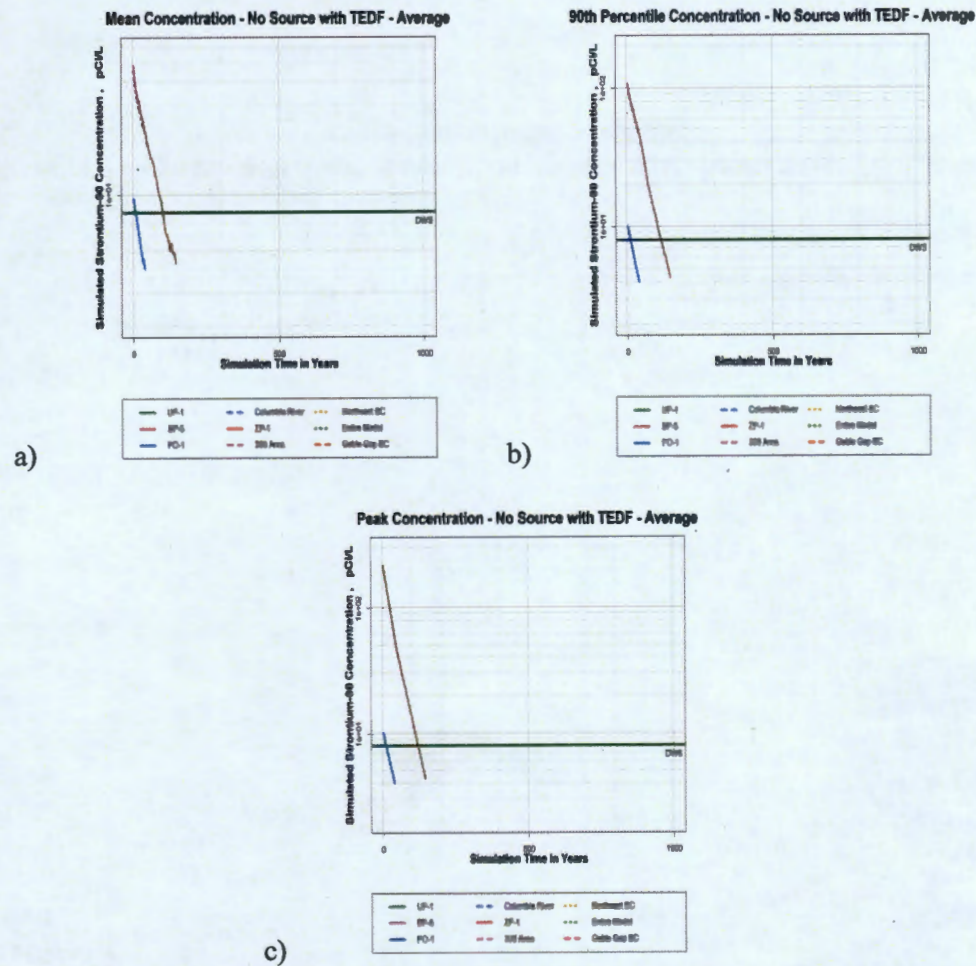


Figure B-208 - Statistical summary of simulated concentration within subregions of the model domain for the strontium-90 plume for the TEDF future use simulation using average concentration initial conditions.

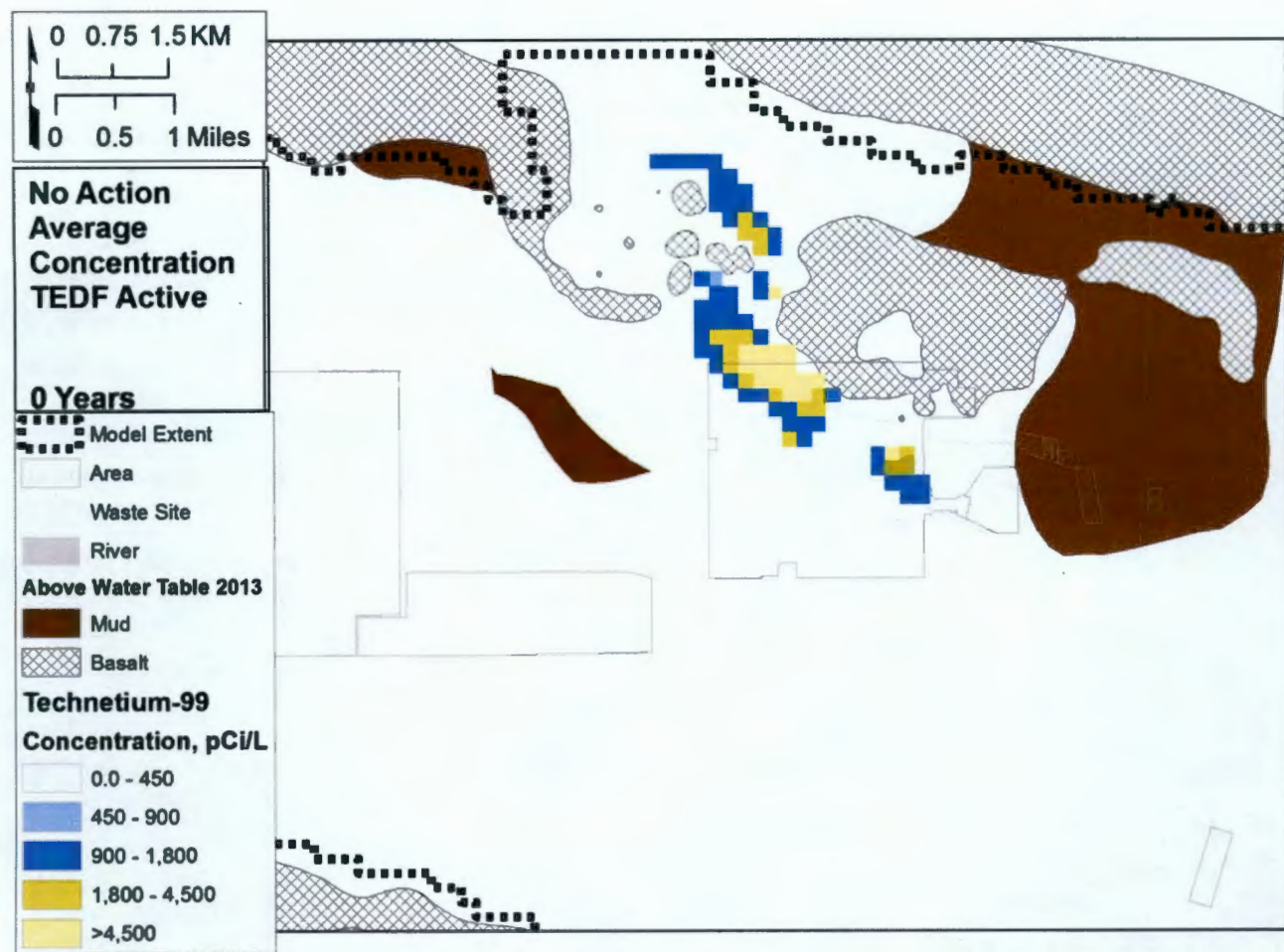


Figure B-209 - Plan view contours of the technetium-99 plume at simulation time 0 years based on the TEDF future use simulation using average concentration initial conditions

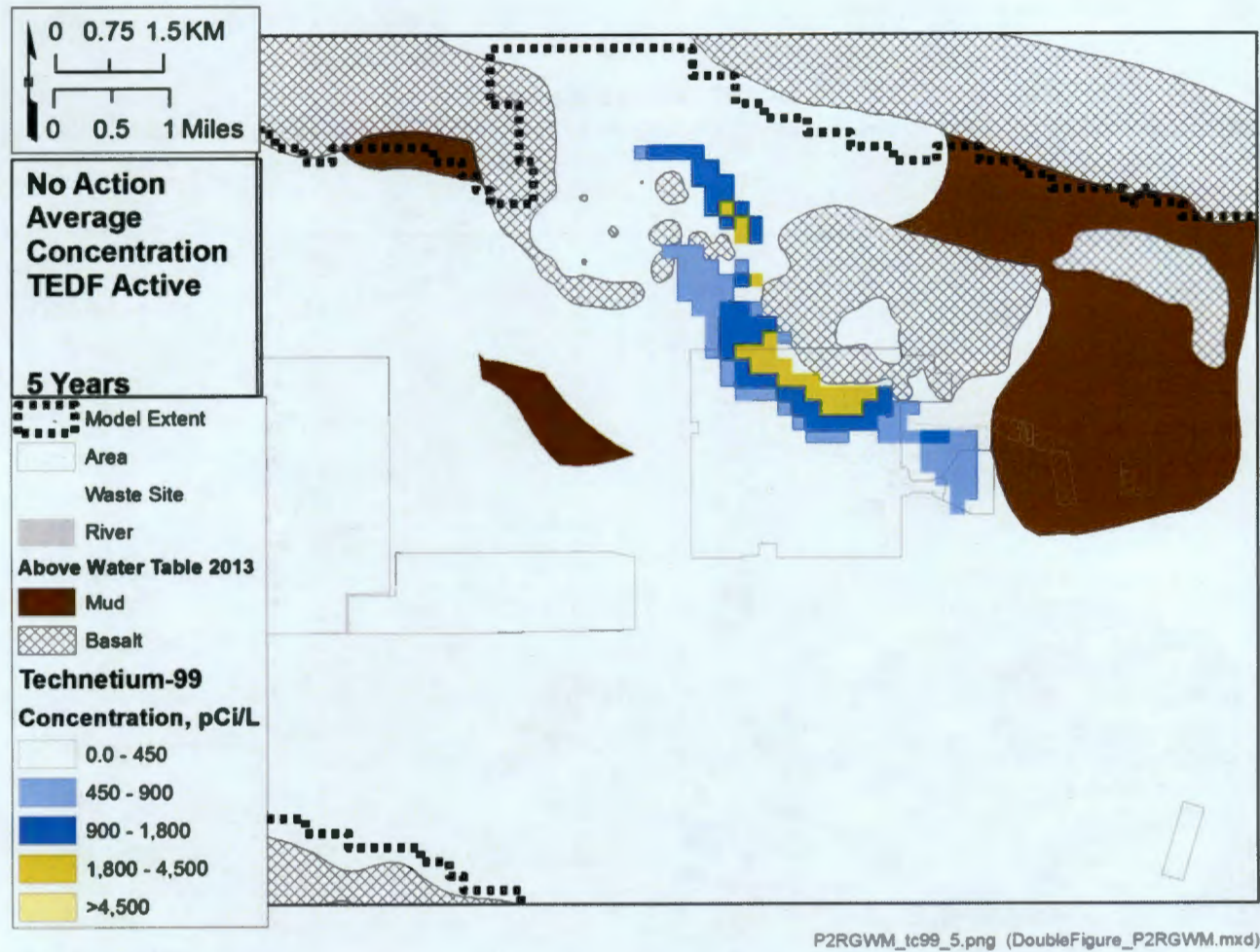


Figure B-210 - Plan view contours of the technetium-99 plume at simulation time 5 years based on the TEDF future use simulation using average concentration initial conditions

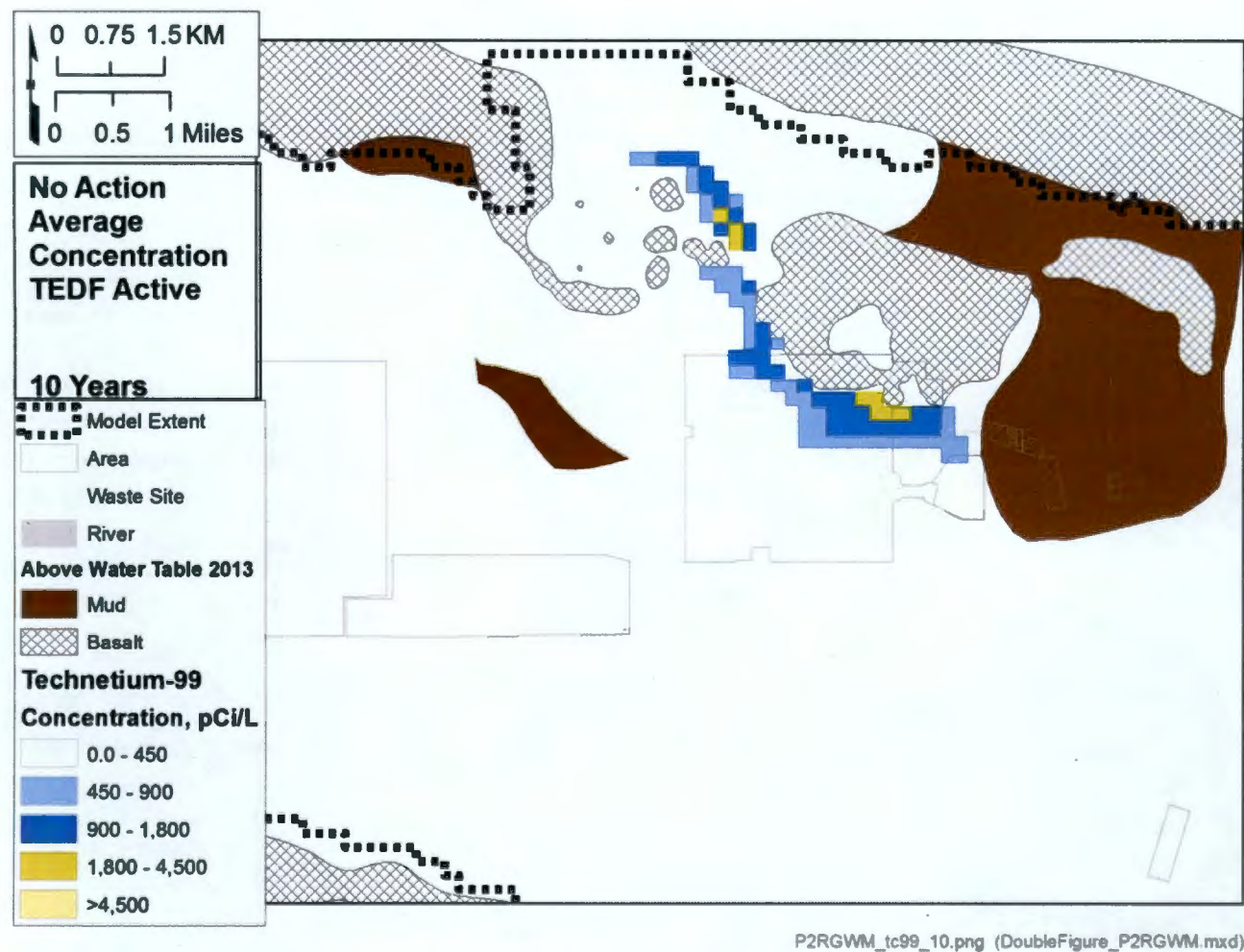
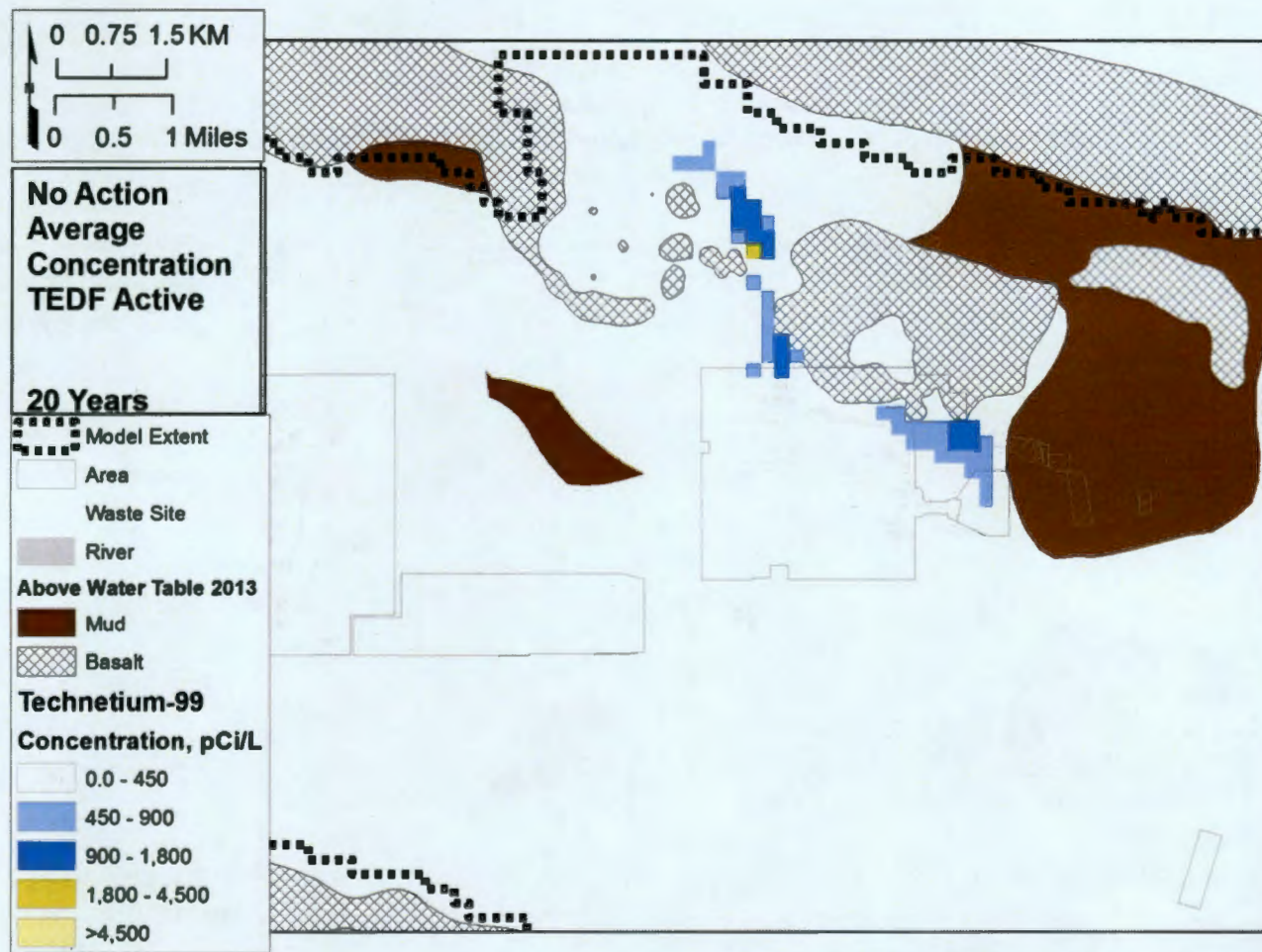


Figure B-211 - Plan view contours of the technetium-99 plume at simulation time 10 years based on the TEDF future use simulation using average concentration initial conditions



P2RGWM_tc99_20.png (DoubleFigure_P2RGWM.mxd)

Figure B-212 - Plan view contours of the technetium-99 plume at simulation time 20 years based on the TEDF future use simulation using average concentration initial conditions

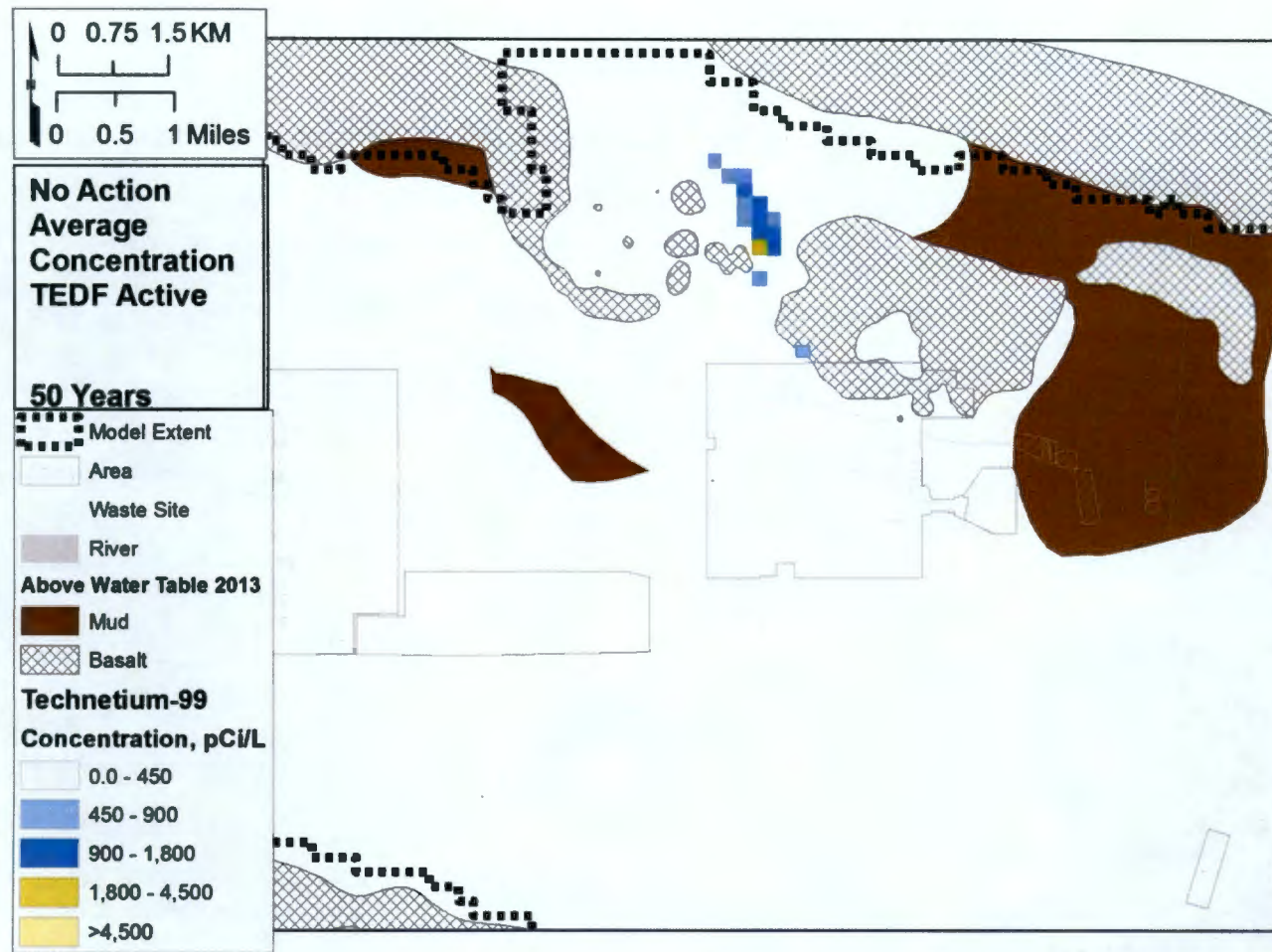
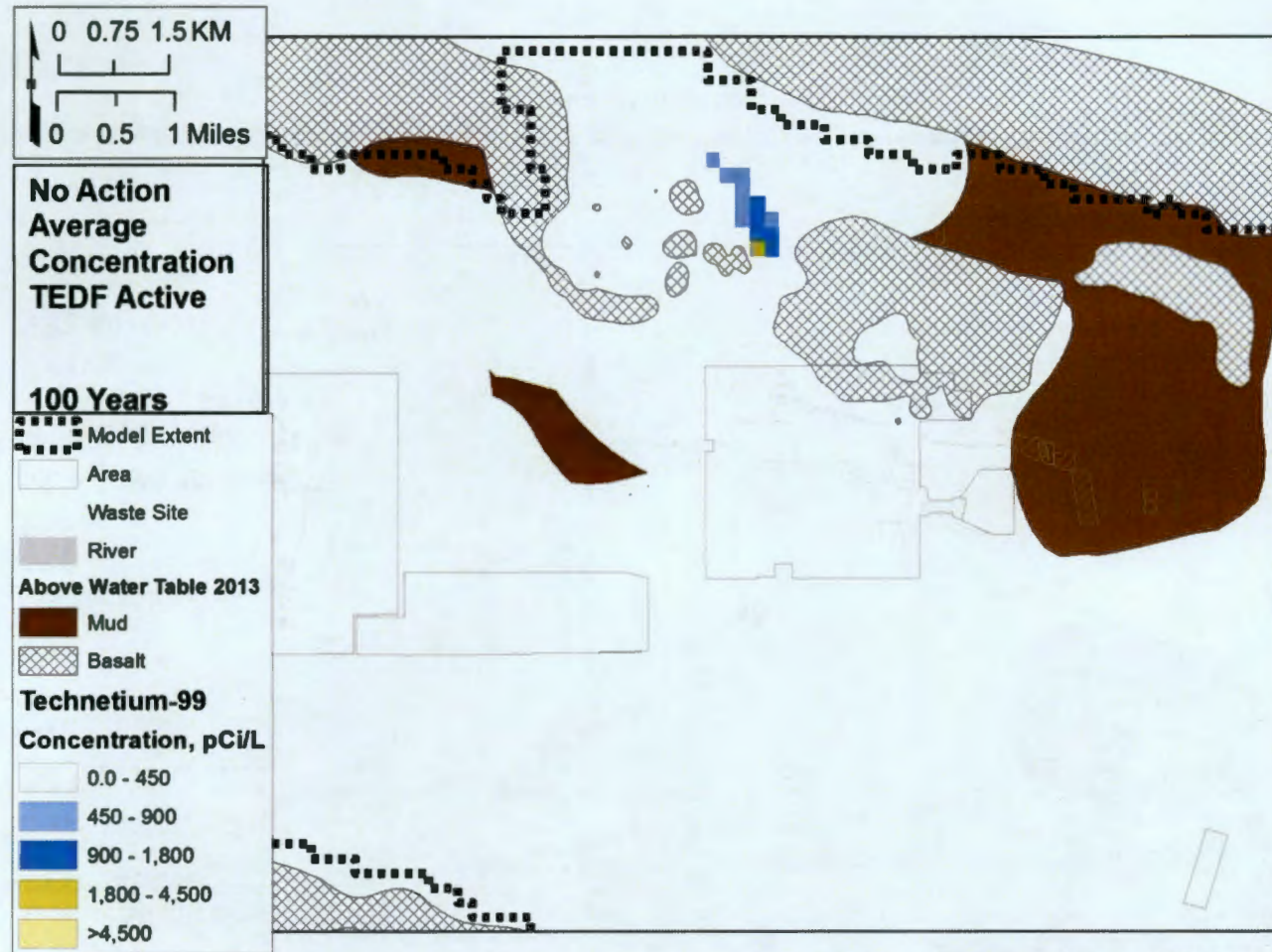


Figure B-213 - Plan view contours of the technetium-99 plume at simulation time 50 years based on the TEDF future use simulation using average concentration initial conditions



P2RGWM_tc99_100.png (DoubleFigure_P2RGWM.mxd)

Figure B-214 - Plan view contours of the technetium-99 plume at simulation time 100 years based on the TEDF future use simulation using average concentration initial conditions

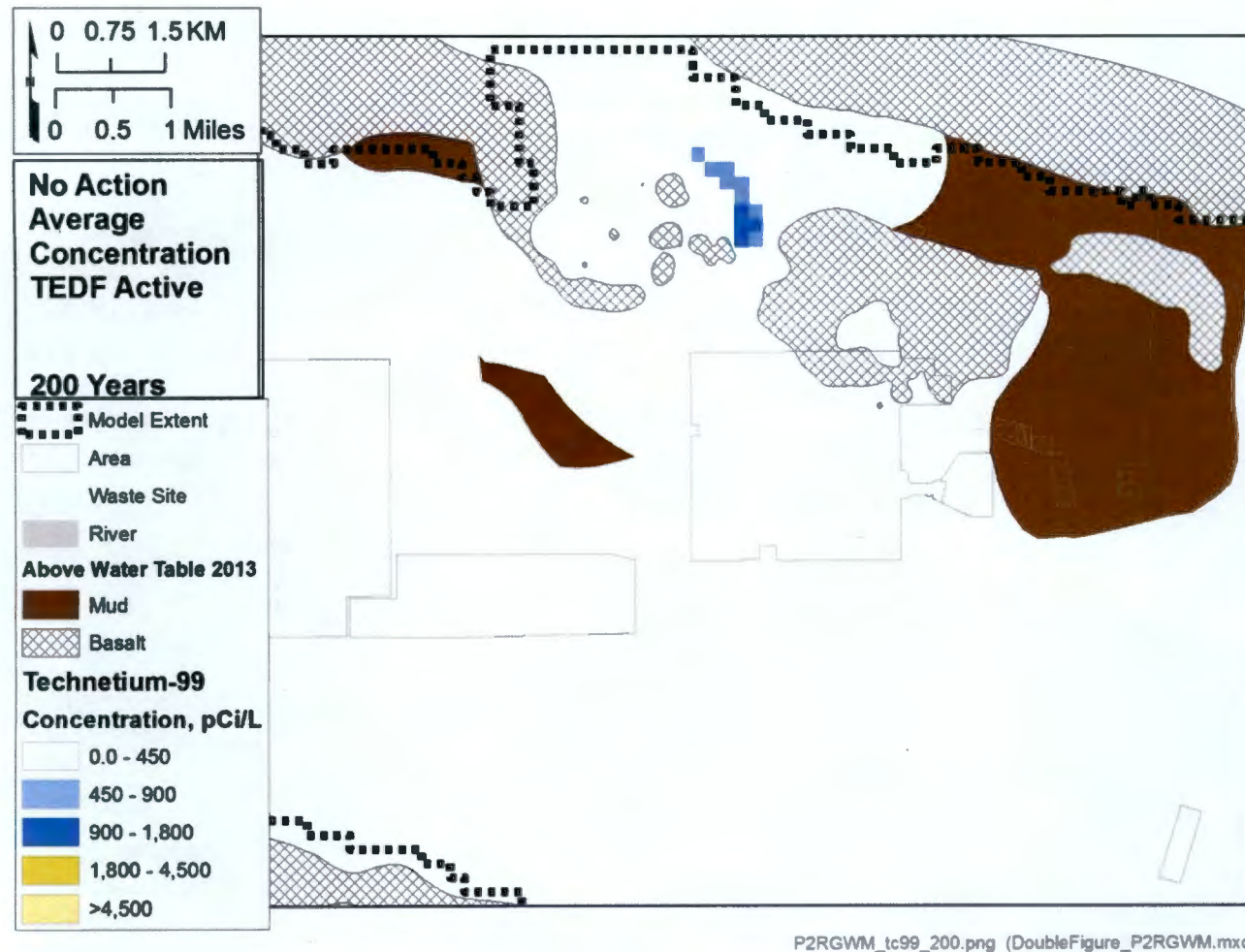
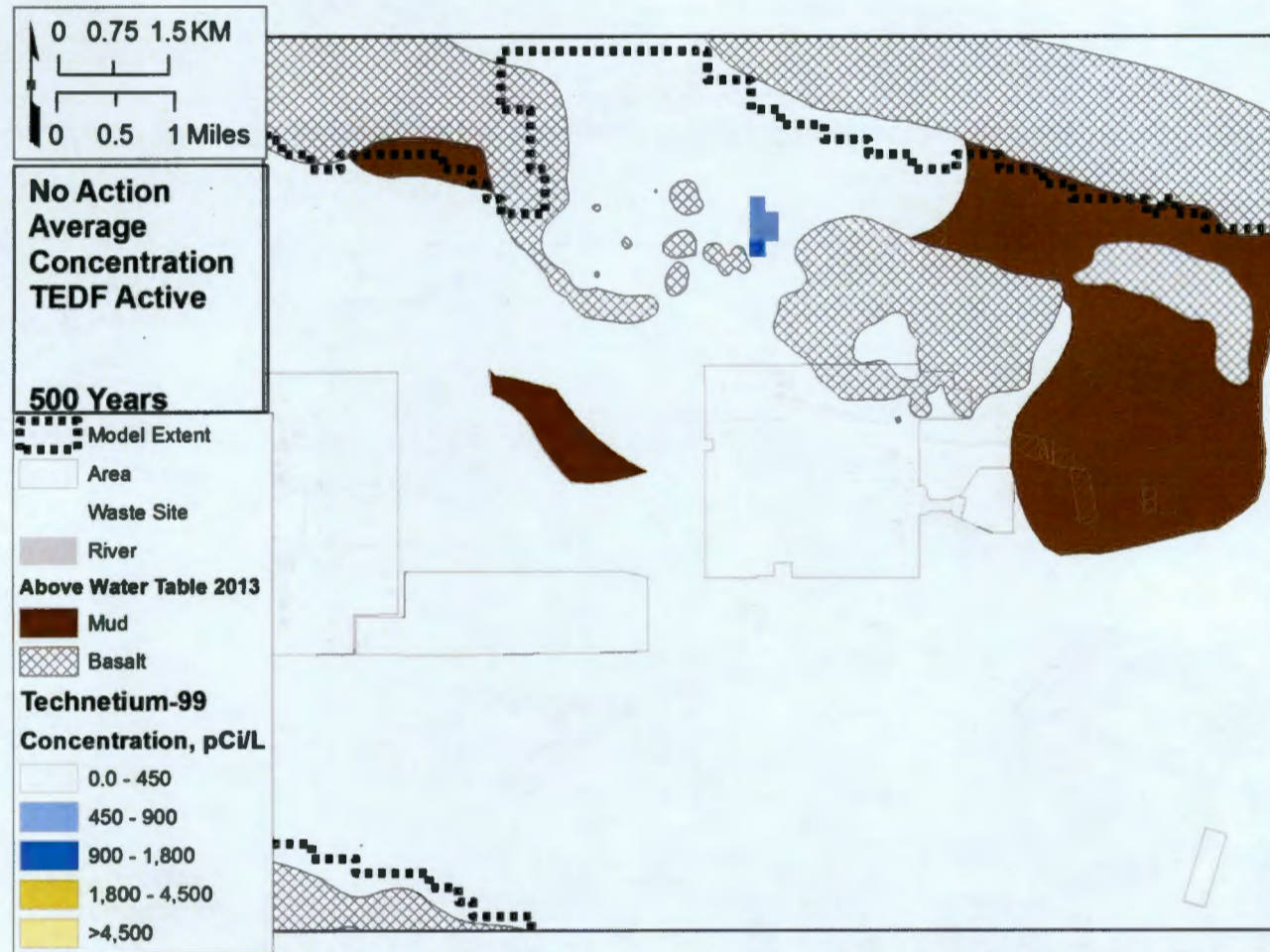


Figure B-215 - Plan view contours of the technetium-99 plume at simulation time 200 years based on the TEDF future use simulation using average concentration initial conditions



P2RGWM_tc99_500.png (DoubleFigure_P2RGWM.mxd)

Figure B-216 - Plan view contours of the technetium-99 plume at simulation time 500 years based on the TEDF future use simulation using average concentration initial conditions

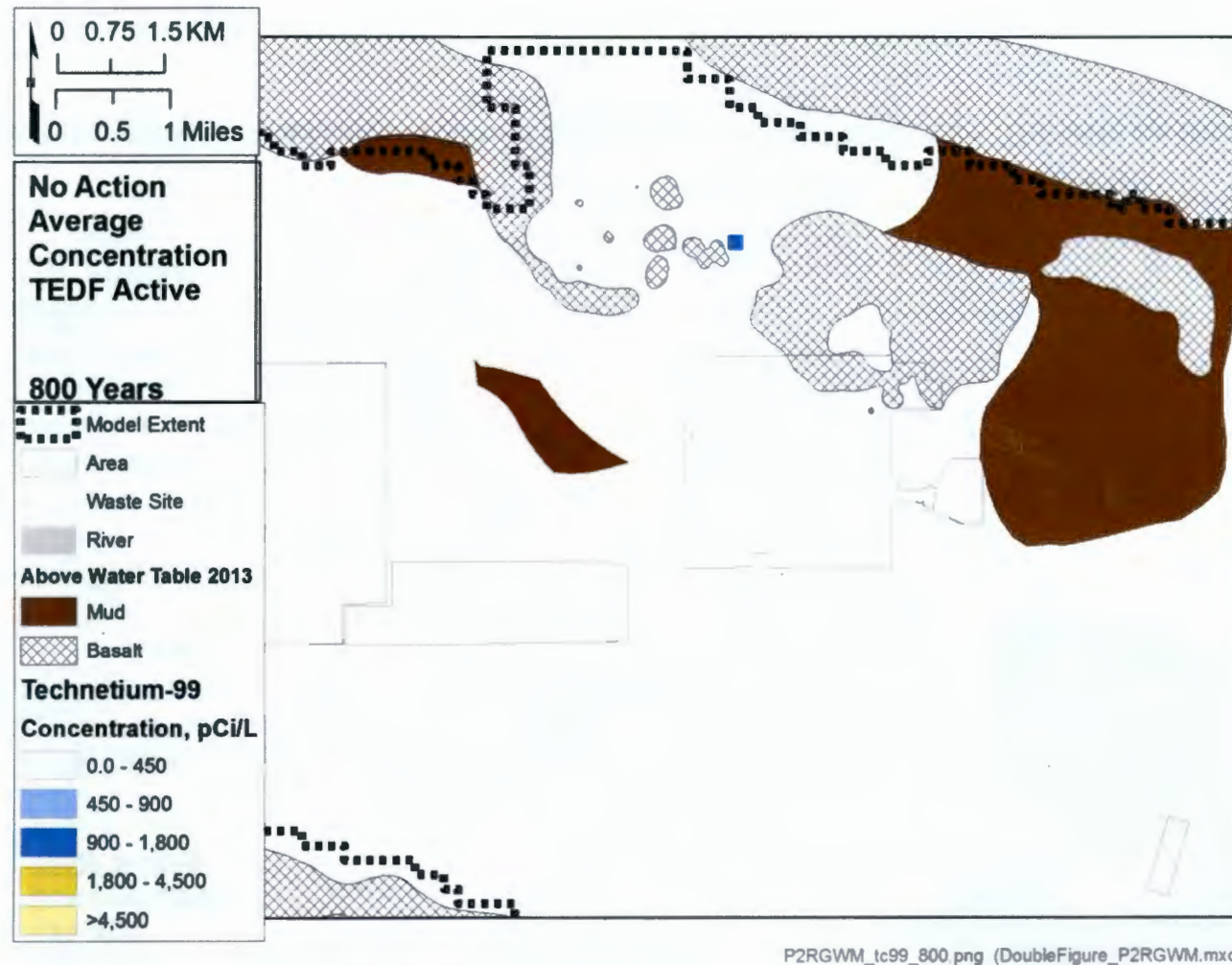


Figure B-217 - Plan view contours of the technetium-99 plume at simulation time 800 years based on the TEDF future use simulation using average concentration initial conditions

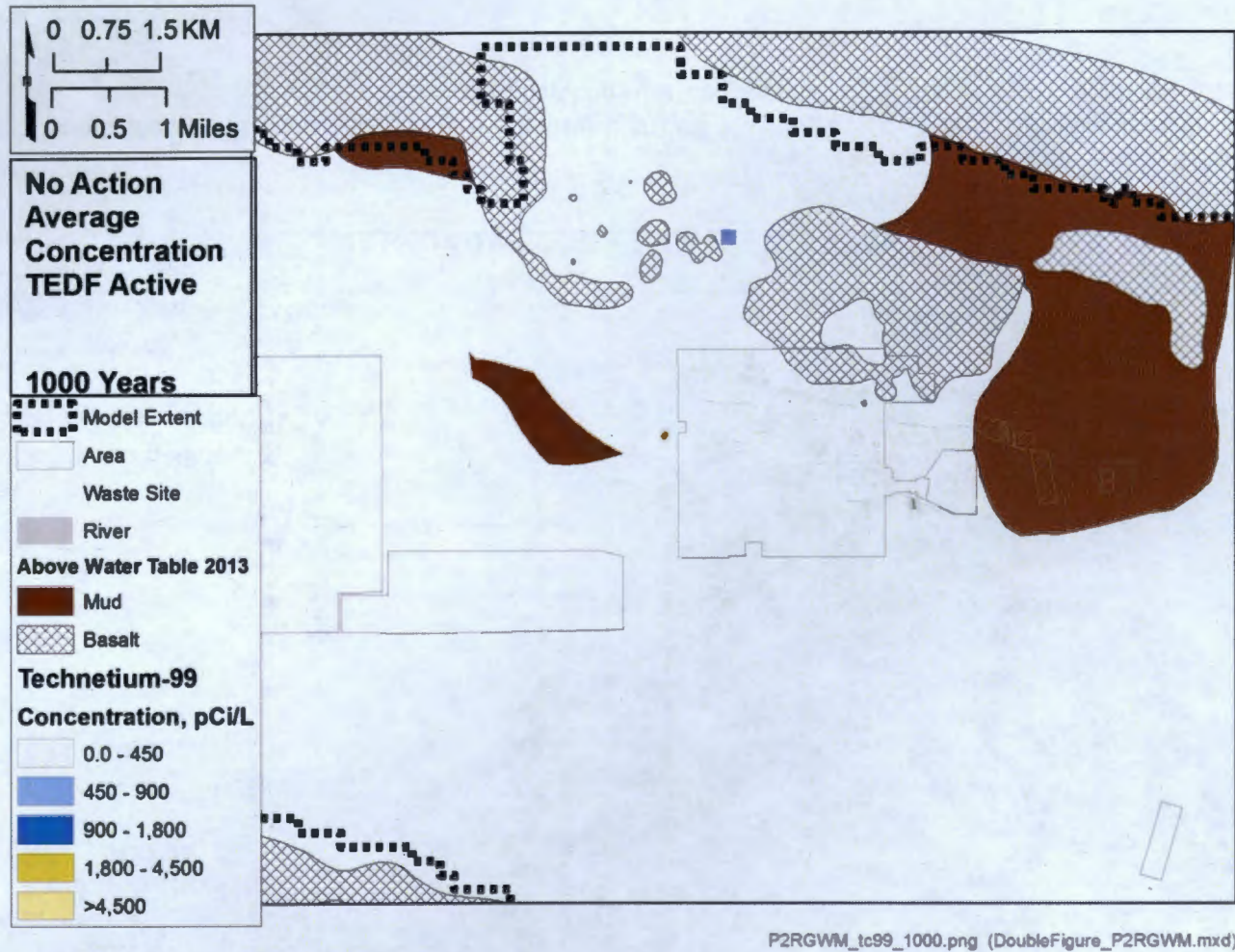


Figure B-218 - Plan view contours of the technetium-99 plume at simulation time 1000 years based on the TEDF future use simulation using average concentration initial conditions

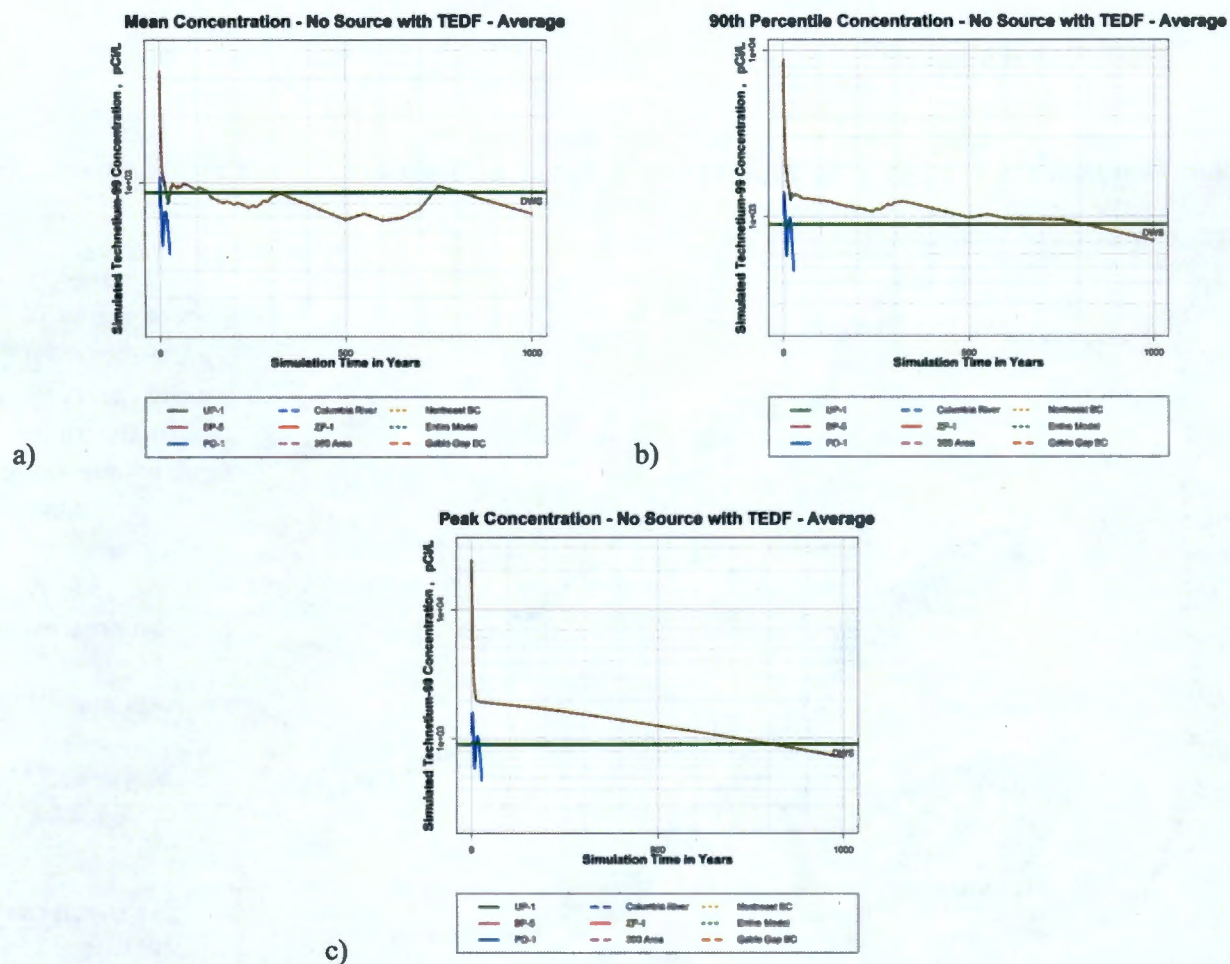


Figure B-219 - Statistical summary of simulated concentration within subregions of the model domain for the technetium-99 plume for the TEDF future use simulation using average concentration initial conditions.

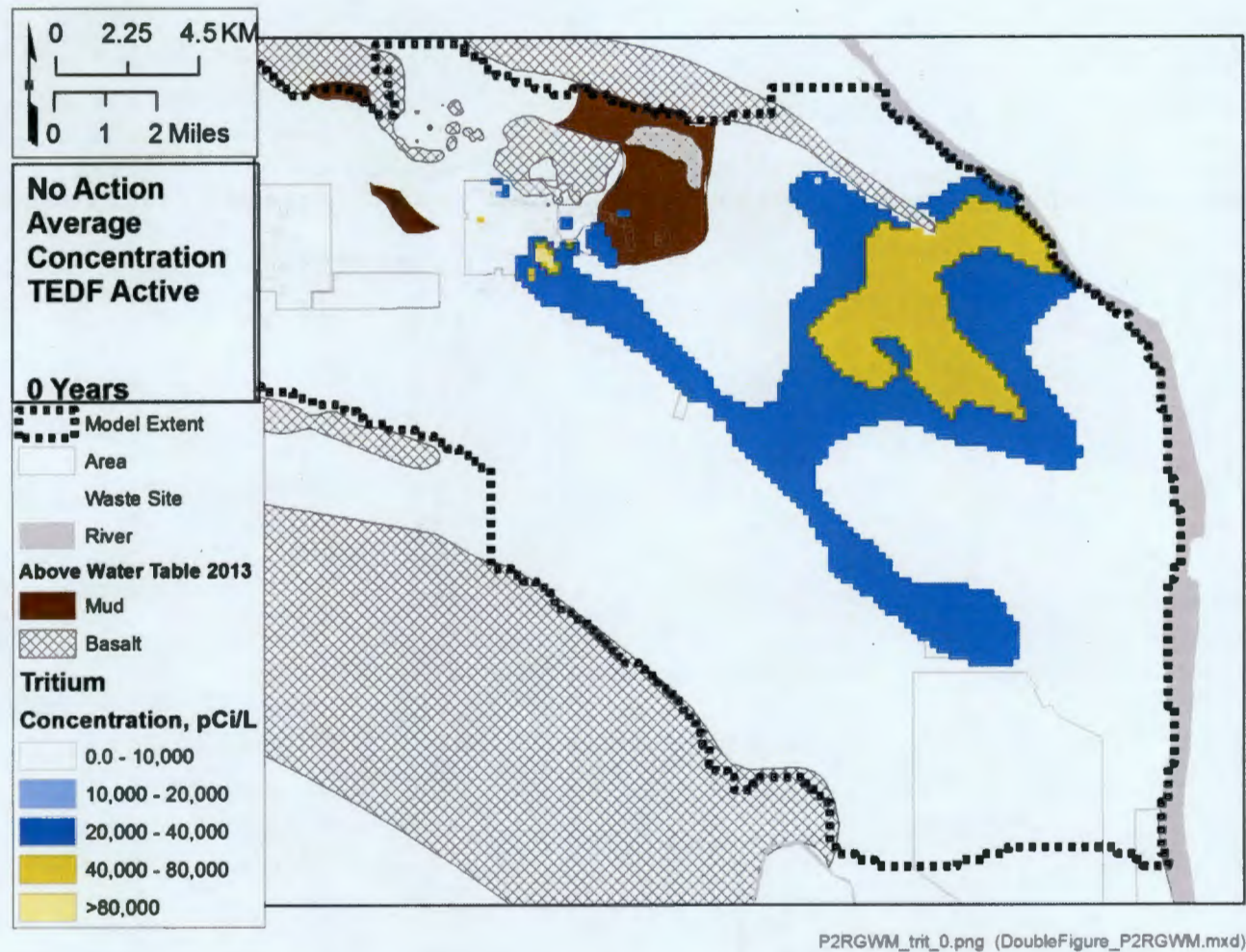


Figure B-220 - Plan view contours of the tritium plume at simulation time 0 years based on the TEDF future use simulation using average concentration initial conditions

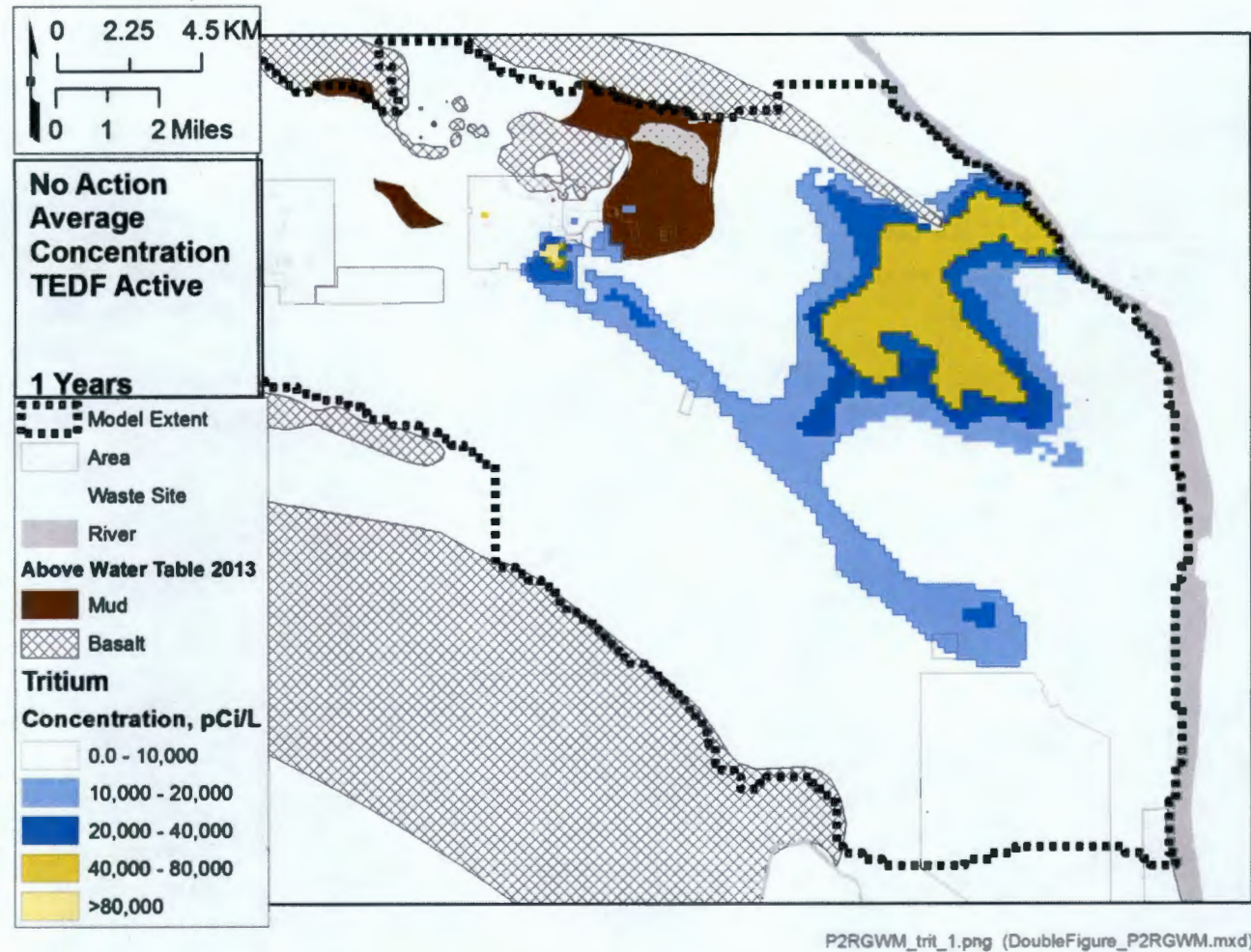


Figure B-221 - Plan view contours of the tritium plume at simulation time 1 years based on the TEDF future use simulation using average concentration initial conditions

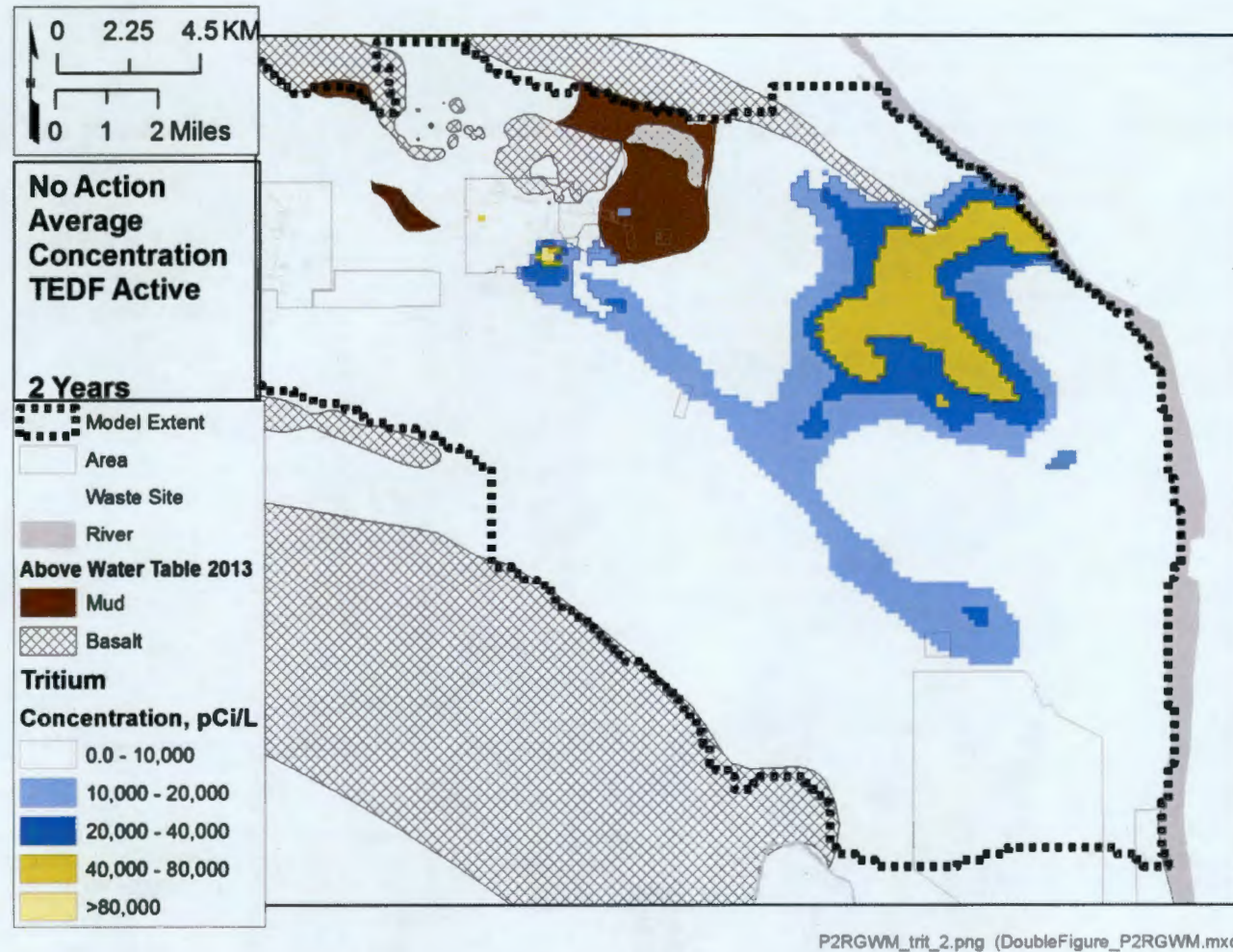


Figure B-222 - Plan view contours of the tritium plume at simulation time 2 years based on the TEDF future use simulation using average concentration initial conditions

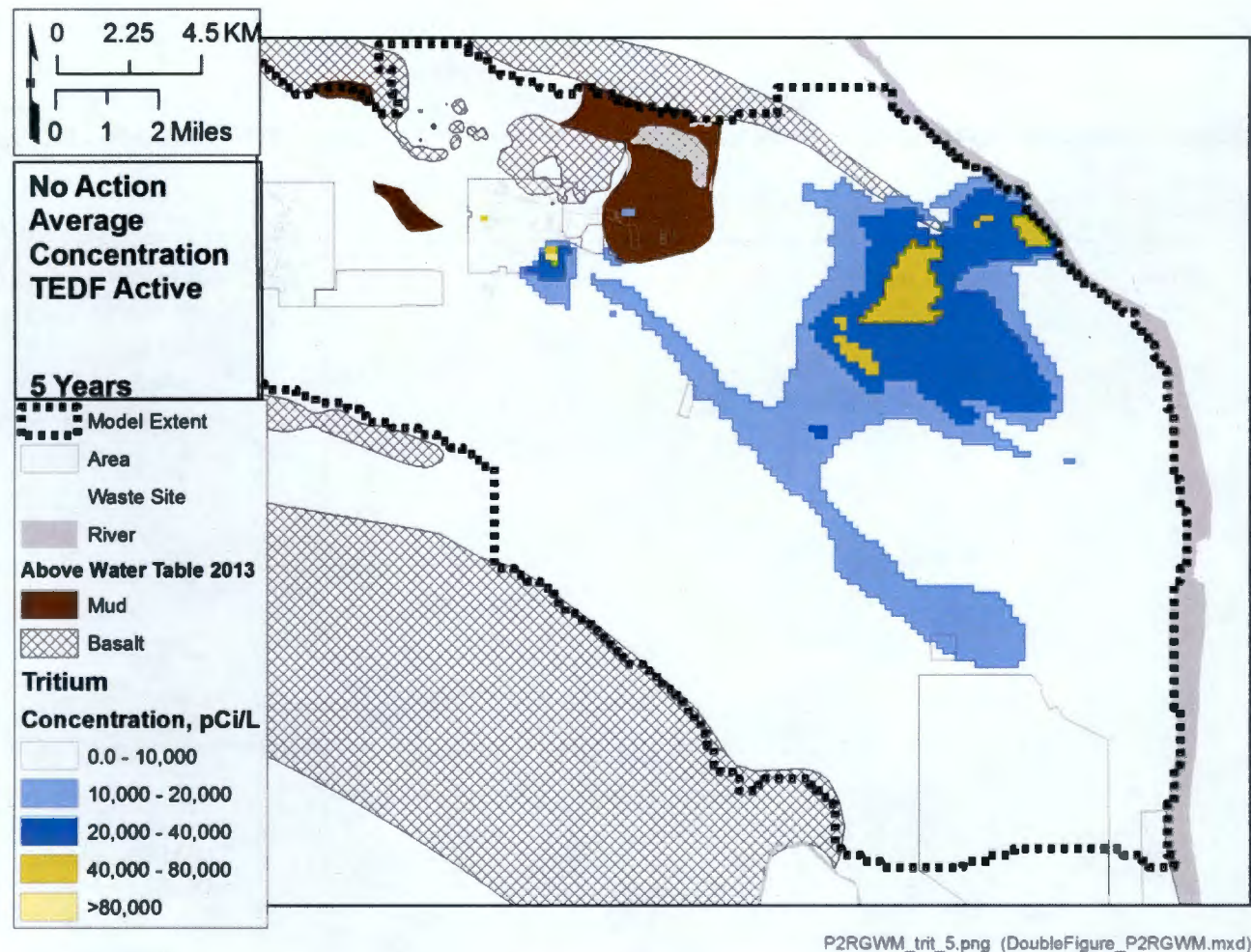
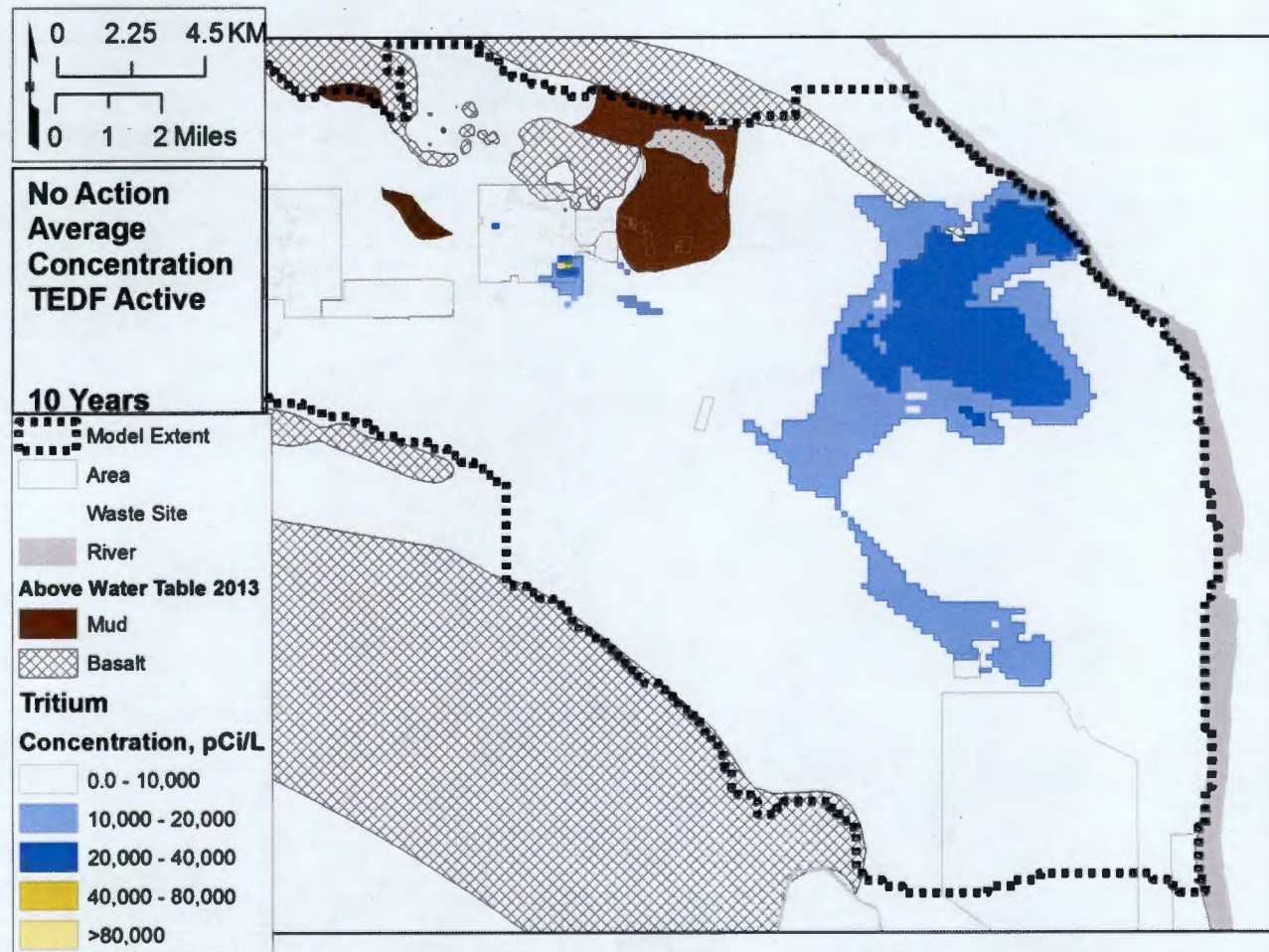
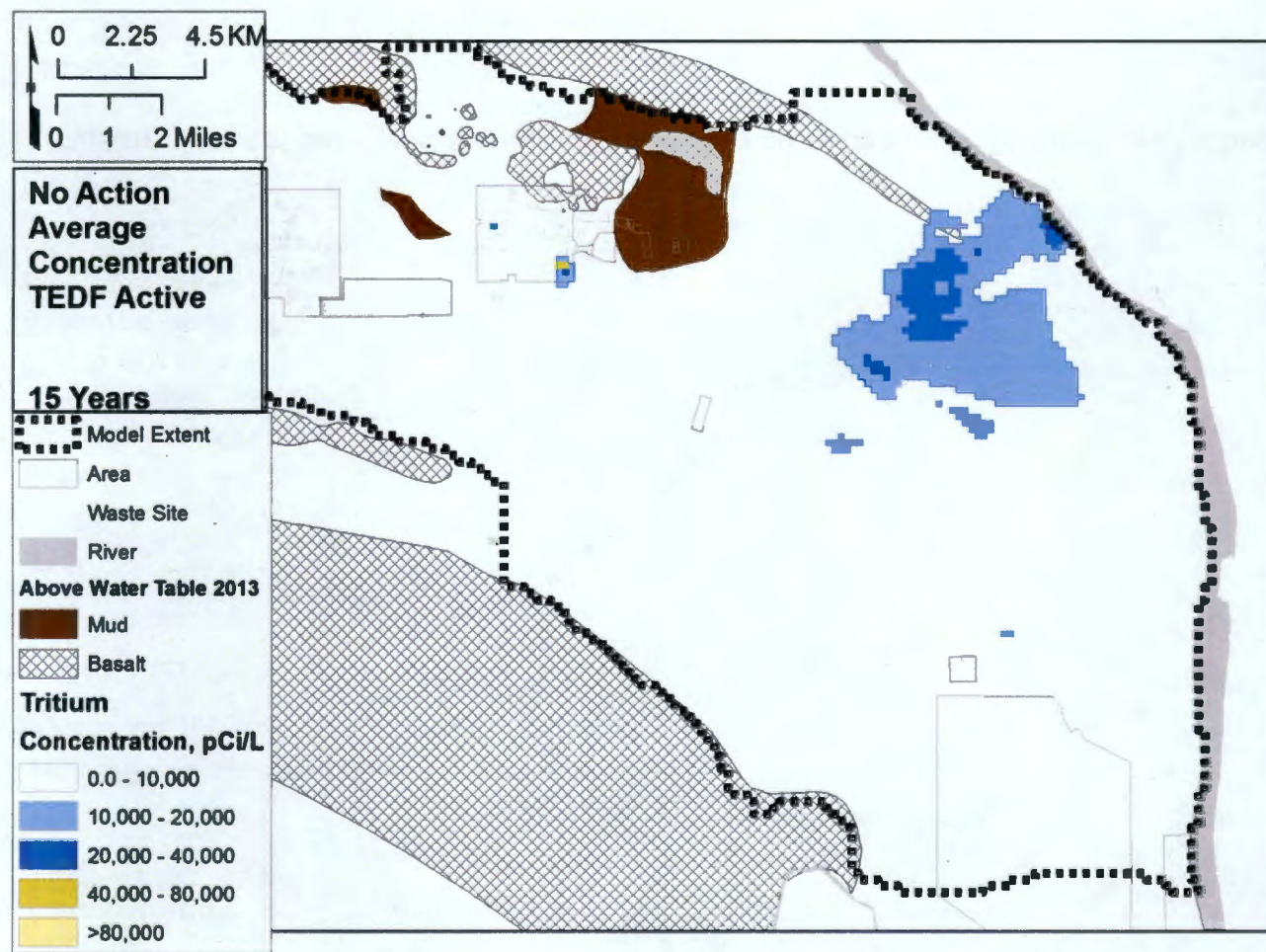


Figure B-223 - Plan view contours of the tritium plume at simulation time 5 years based on the TEDF future use simulation using average concentration initial conditions



P2RGWM_trit_10.png (DoubleFigure_P2RGWM.mxd)

Figure B-224 - Plan view contours of the tritium plume at simulation time 10 years based on the TEDF future use simulation using average concentration initial conditions



P2RGWM_trit_15.png (DoubleFigure_P2RGWM.mxd)

Figure B-225 - Plan view contours of the tritium plume at simulation time 15 years based on the T EDF future use simulation using average concentration initial conditions

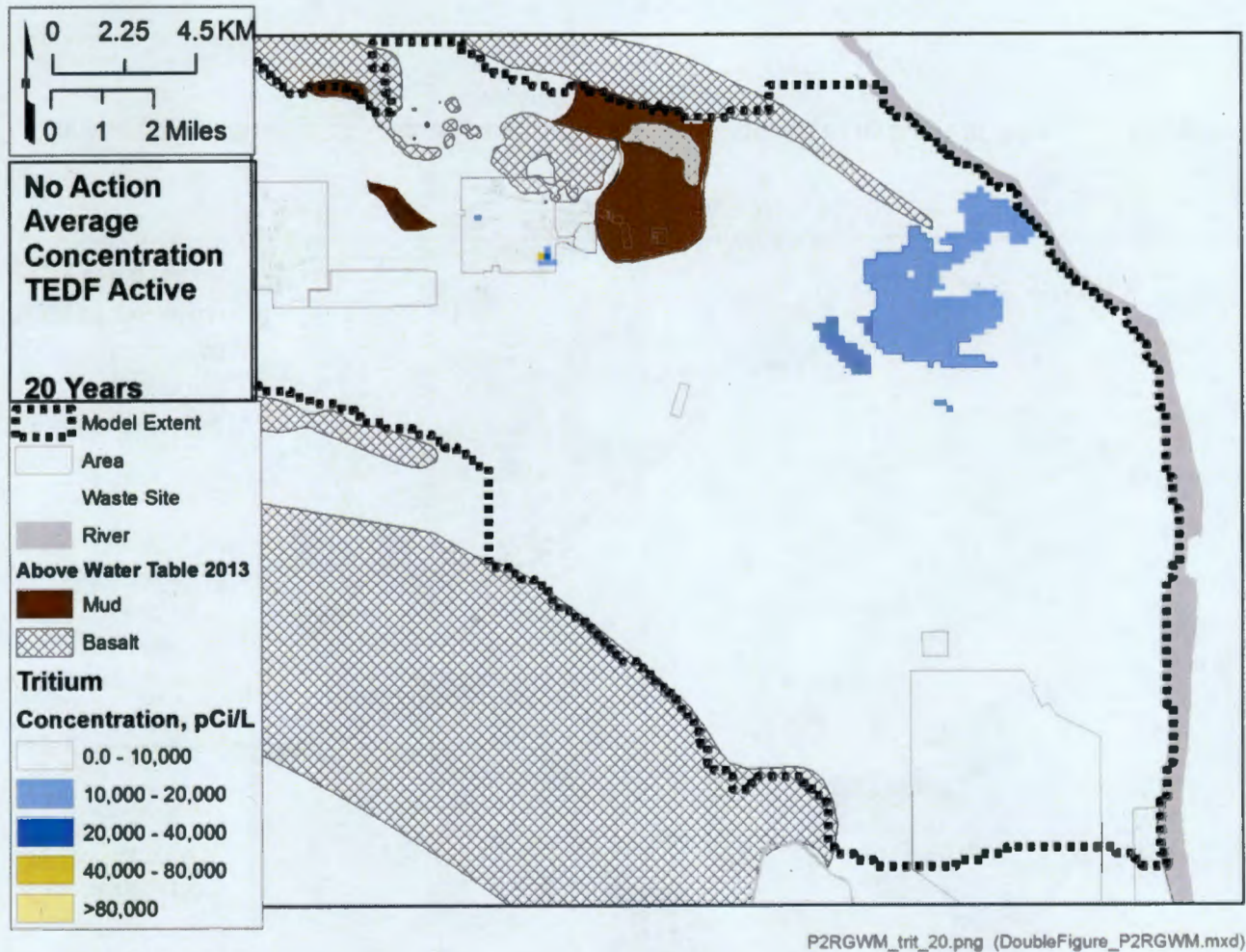


Figure B-226 - Plan view contours of the tritium plume at simulation time 20 years based on the TEDF future use simulation using average concentration initial conditions

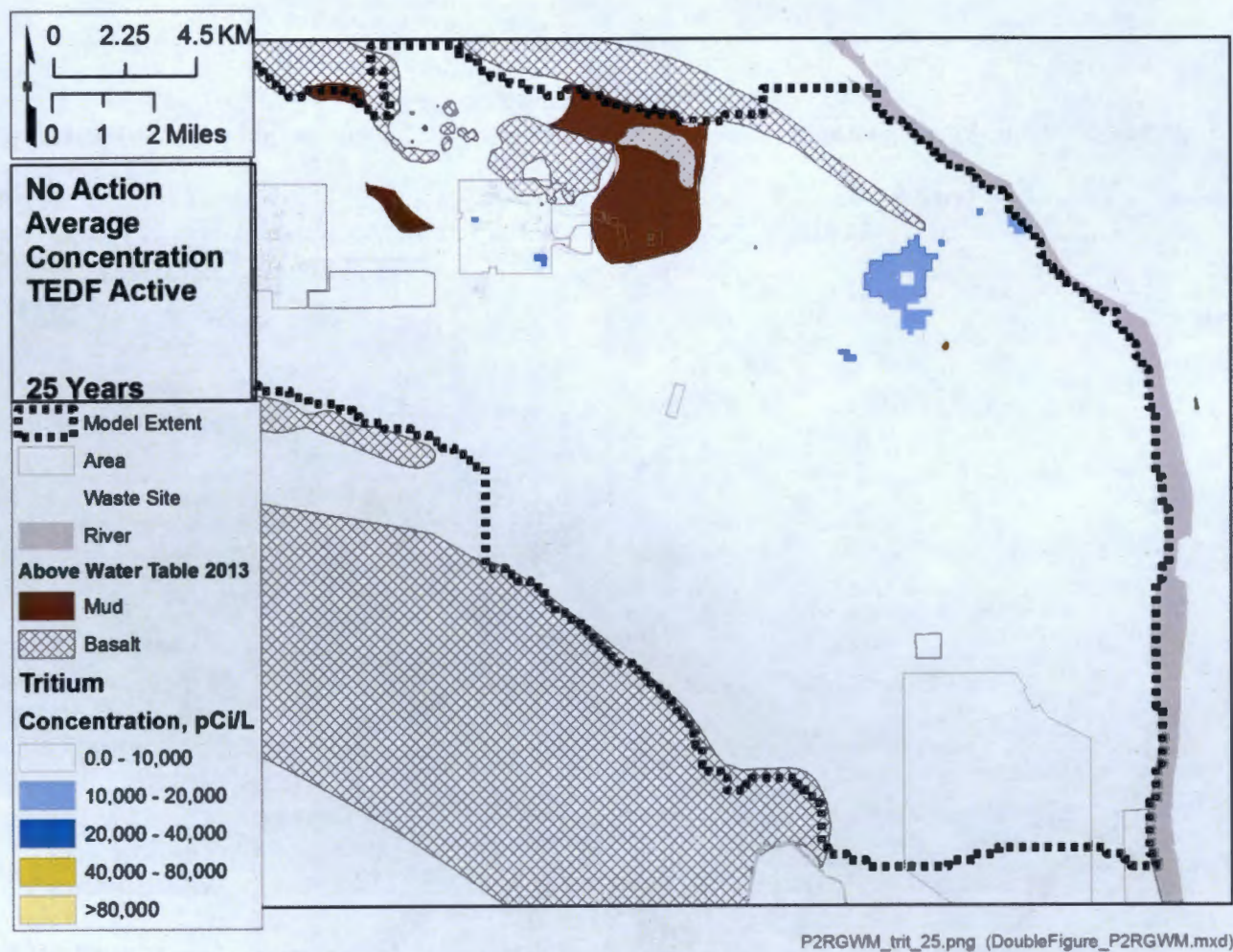


Figure B-227 - Plan view contours of the tritium plume at simulation time 25 years based on the TEDF future use simulation using average concentration initial conditions

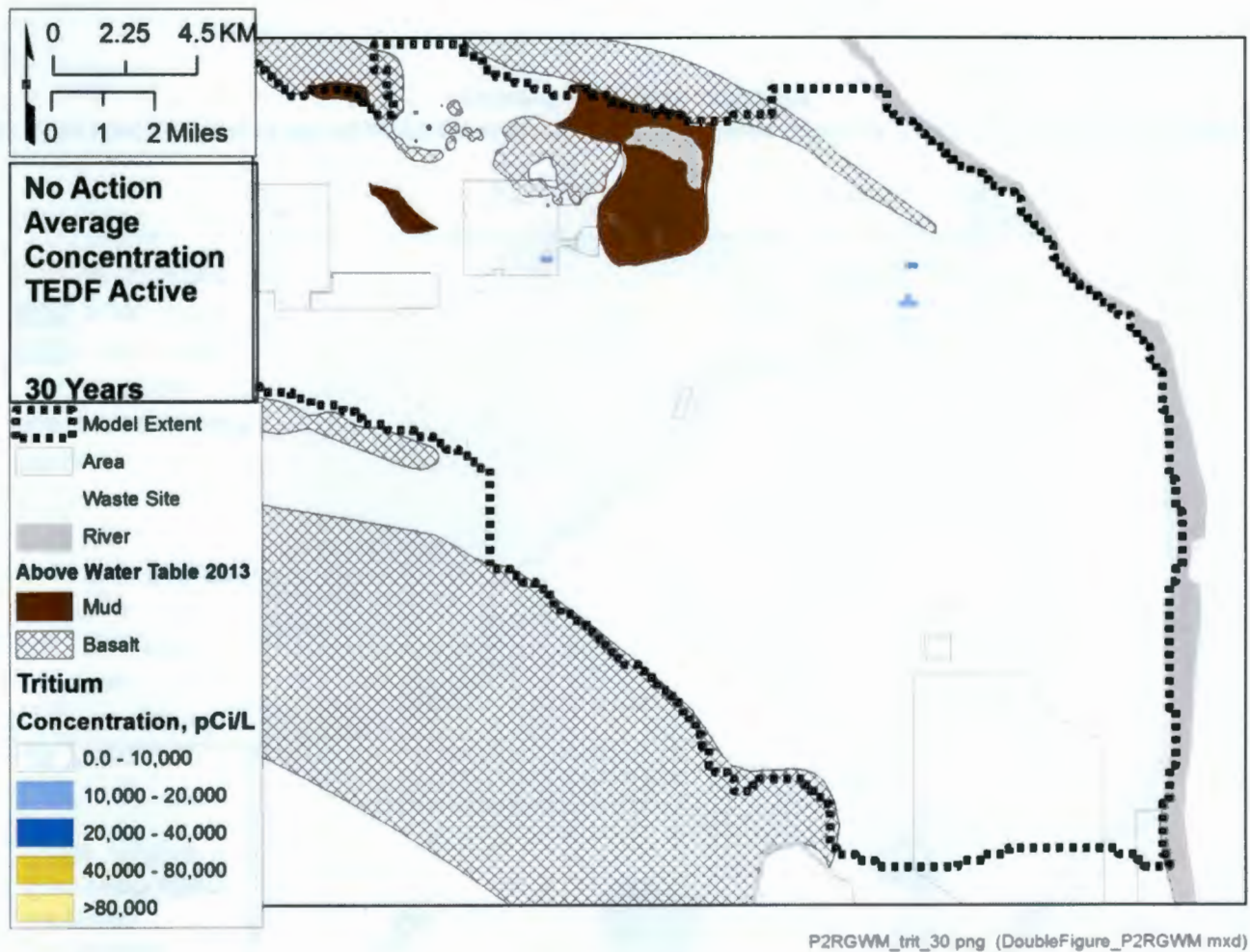


Figure B-228 - Plan view contours of the tritium plume at simulation time 30 years based on the TEDF future use simulation using average concentration initial conditions

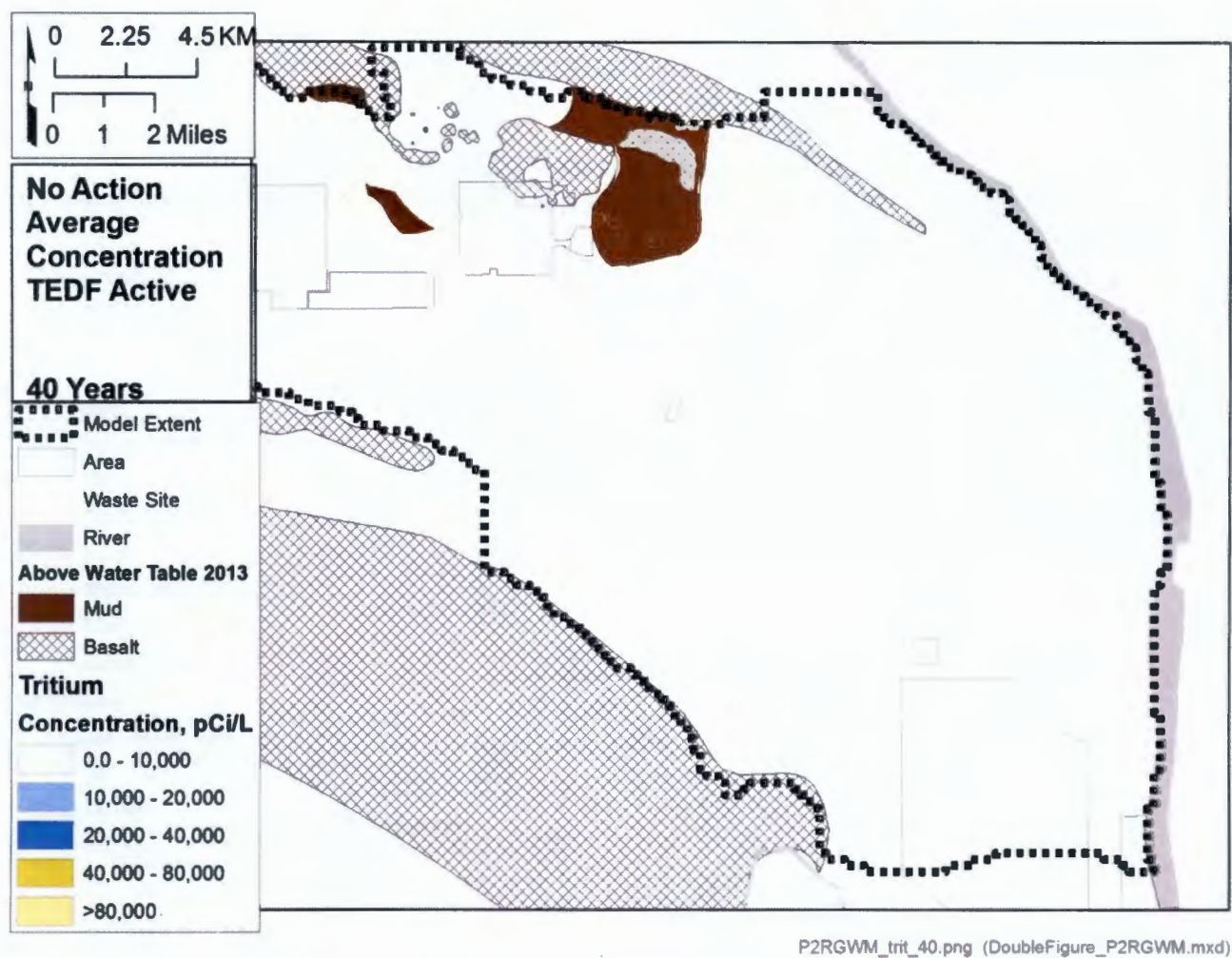


Figure B-229 - Plan view contours of the tritium plume at simulation time 40 years based on the TEDF future use simulation using average concentration initial conditions

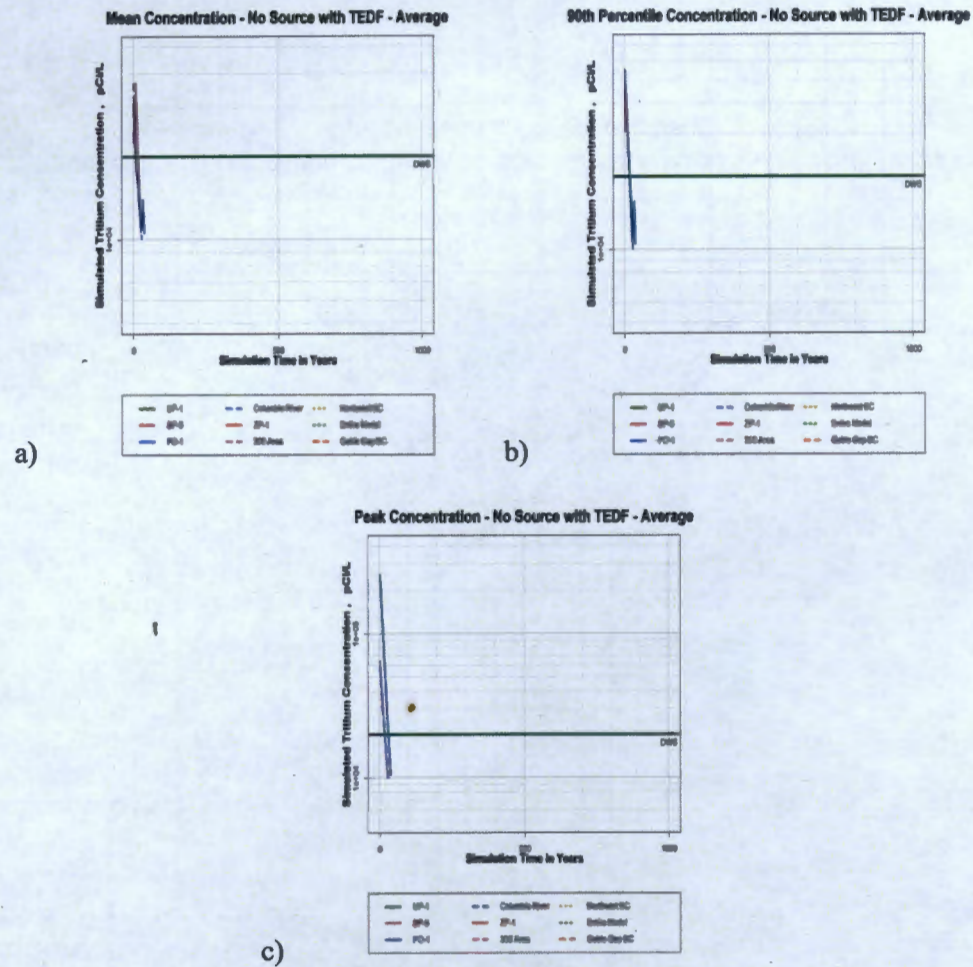


Figure B-230 - Statistical summary of simulated concentration within subregions of the model domain for the tritium plume for the TEDF future use simulation using average concentration initial conditions.

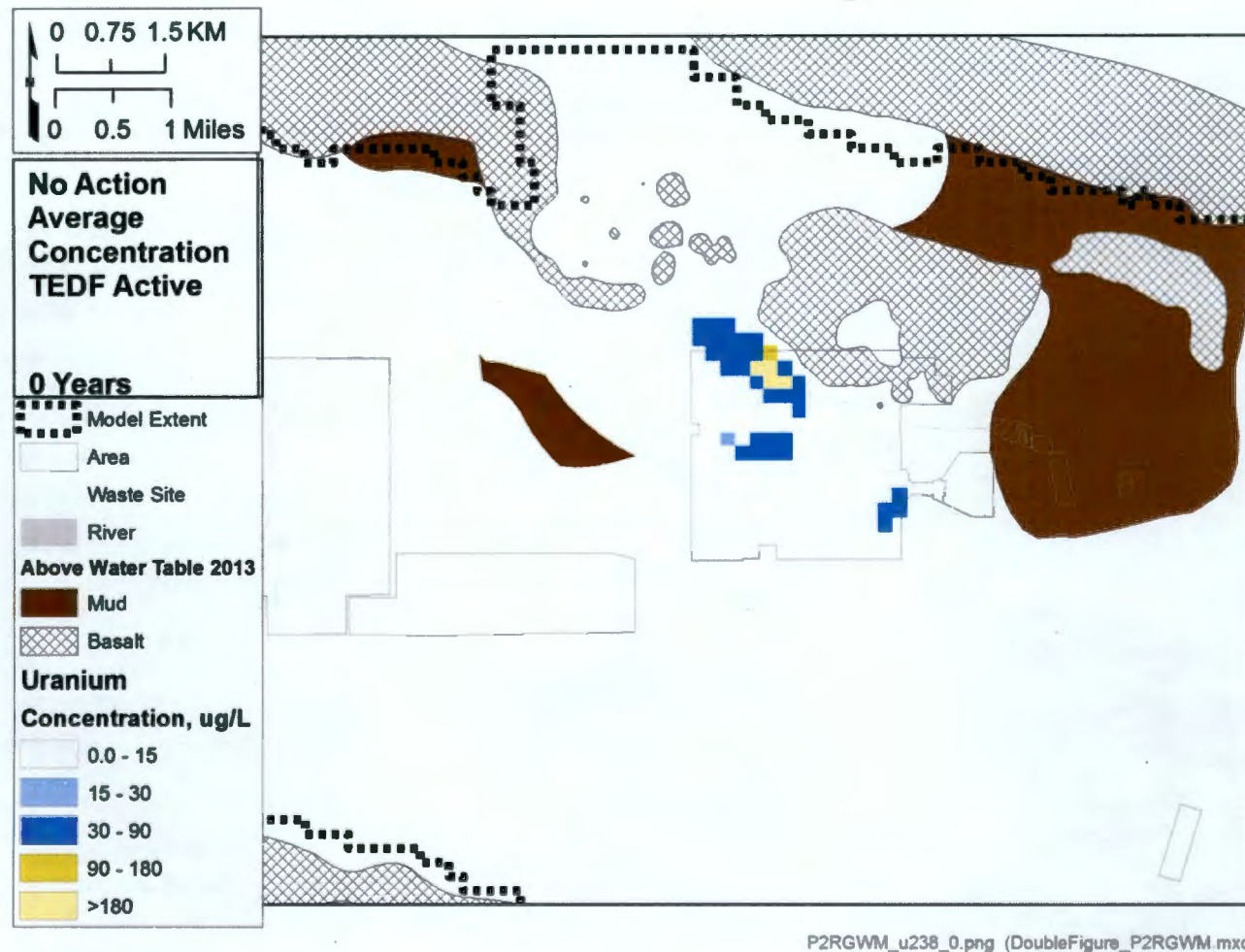
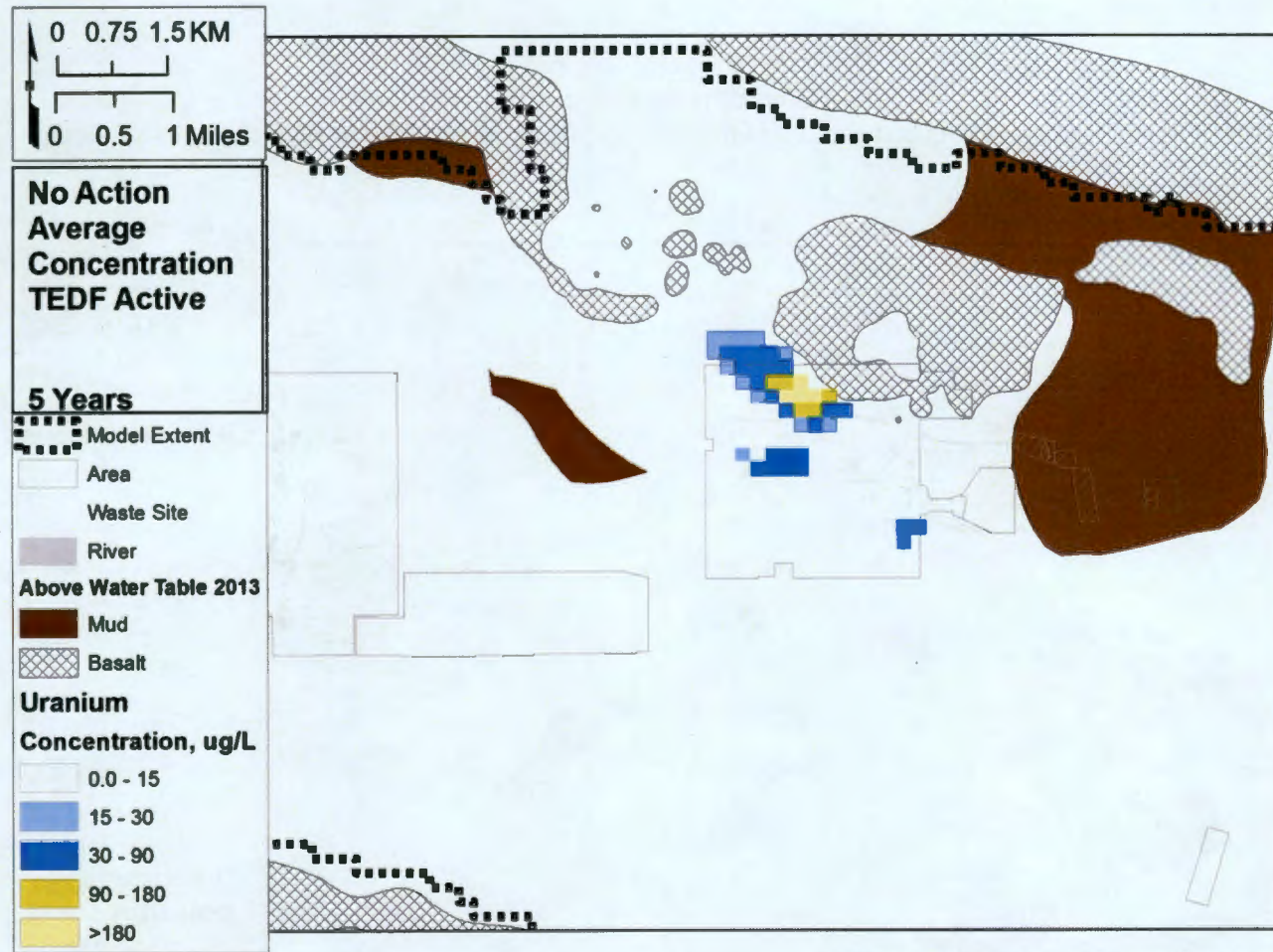
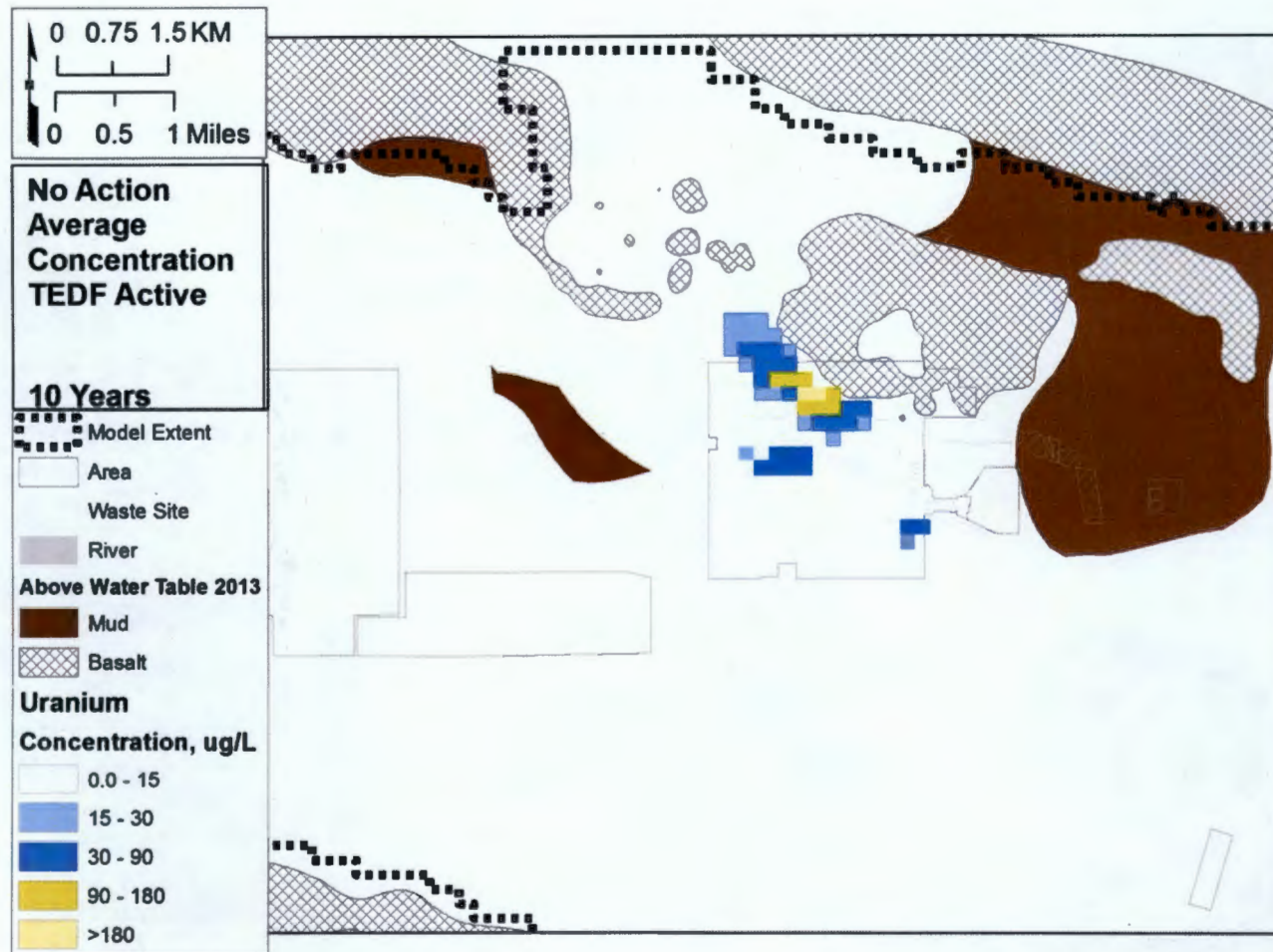


Figure B-231 - Plan view contours of the uranium plume at simulation time 0 years based on the TEDF future use simulation using average concentration initial conditions



P2RGWM_u238_5.png (DoubleFigure_P2RGWM.mxd)

Figure B-232 - Plan view contours of the uranium plume at simulation time 5 years based on the TEDF future use simulation using average concentration initial conditions



P2RGWM_u238_10.png (DoubleFigure_P2RGWM.mxd)

Figure B-233 - Plan view contours of the uranium plume at simulation time 10 years based on the TEDF future use simulation using average concentration initial conditions

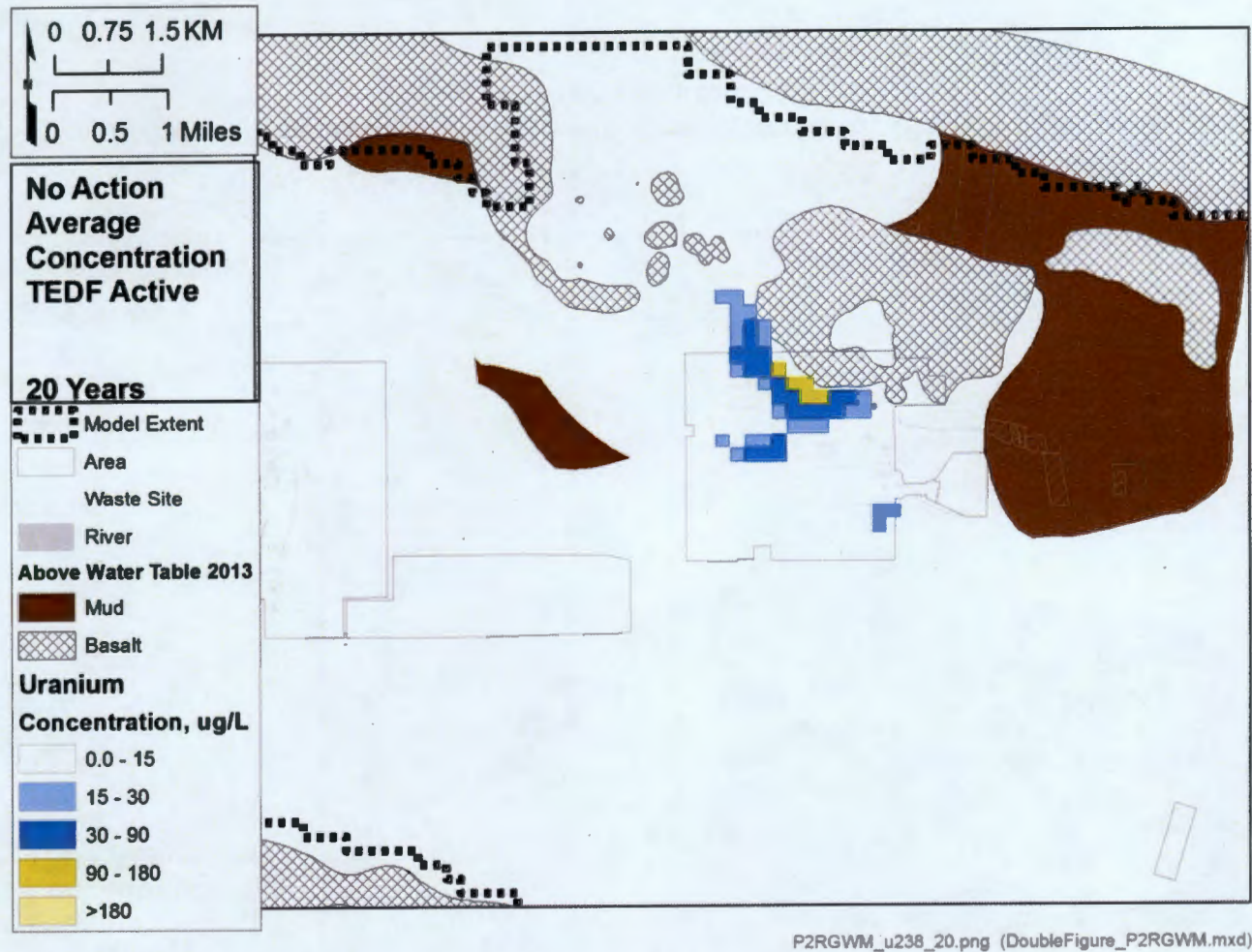
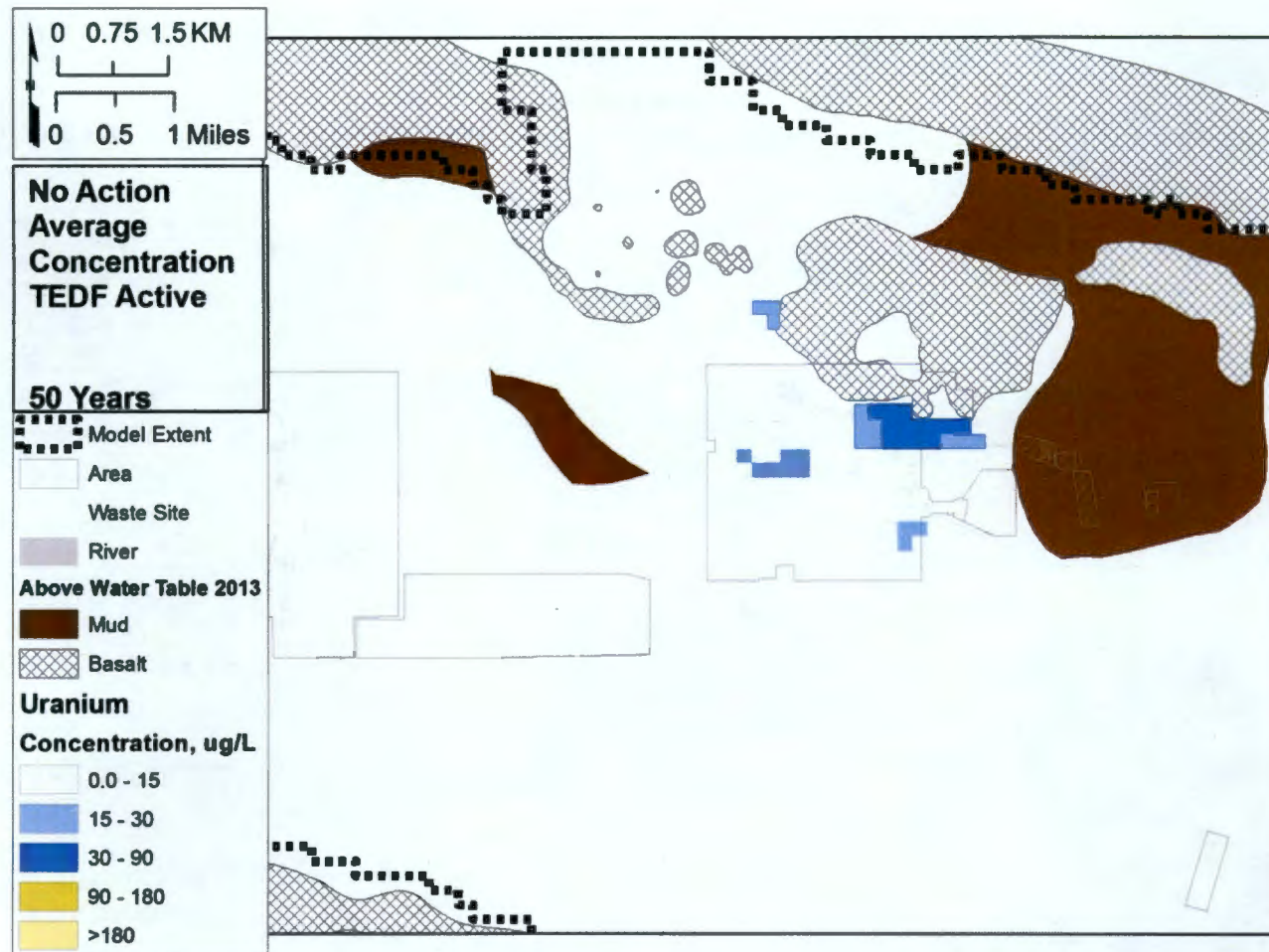


Figure B-234 - Plan view contours of the uranium plume at simulation time 20 years based on the TEDF future use simulation using average concentration initial conditions



P2RGWM_u238_50.png (DoubleFigure_P2RGWM.mxd)

Figure B-235 - Plan view contours of the uranium plume at simulation time 50 years based on the TEDF future use simulation using average concentration initial conditions

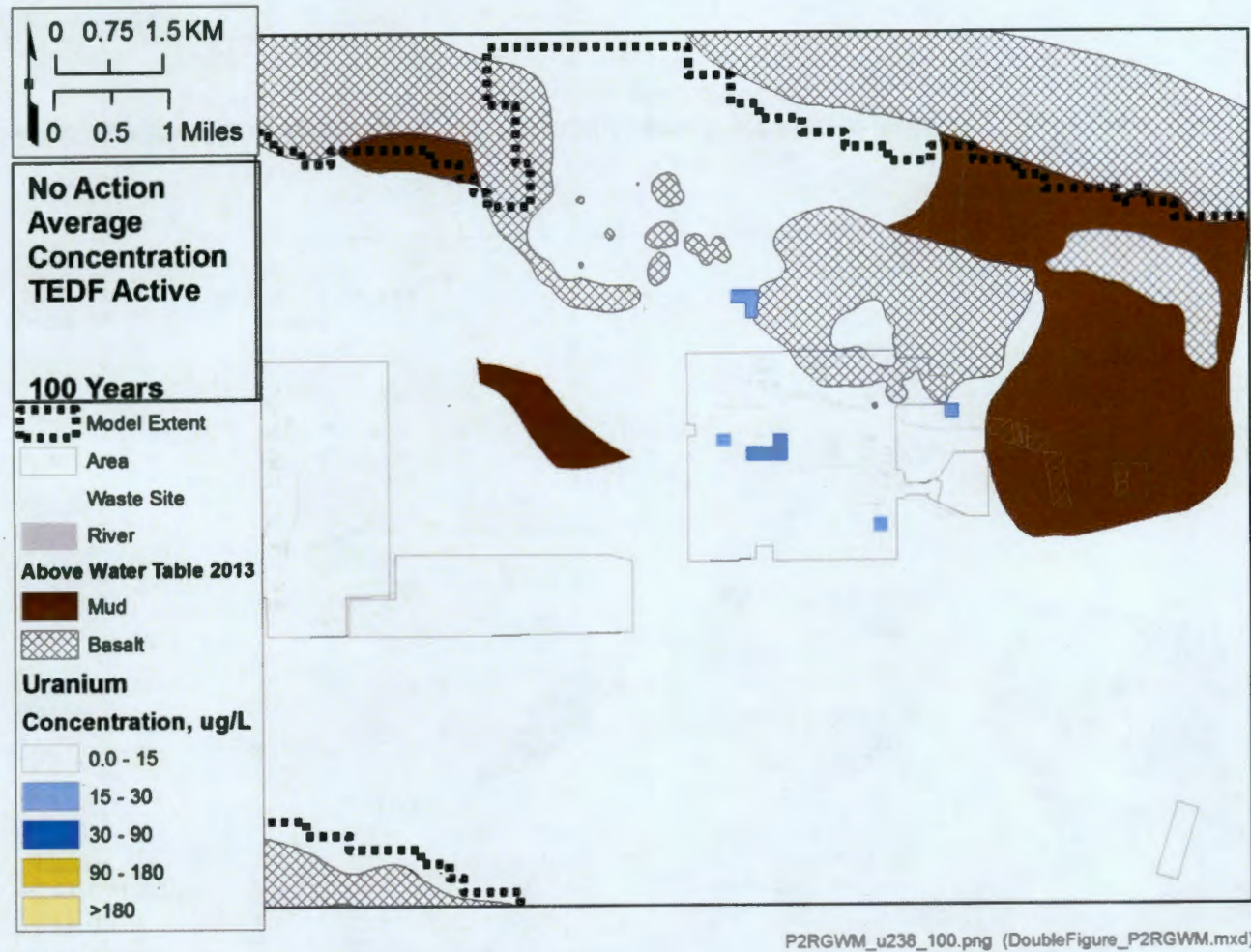


Figure B-236 - Plan view contours of the uranium plume at simulation time 100 years based on the TEDF future use simulation using average concentration initial conditions

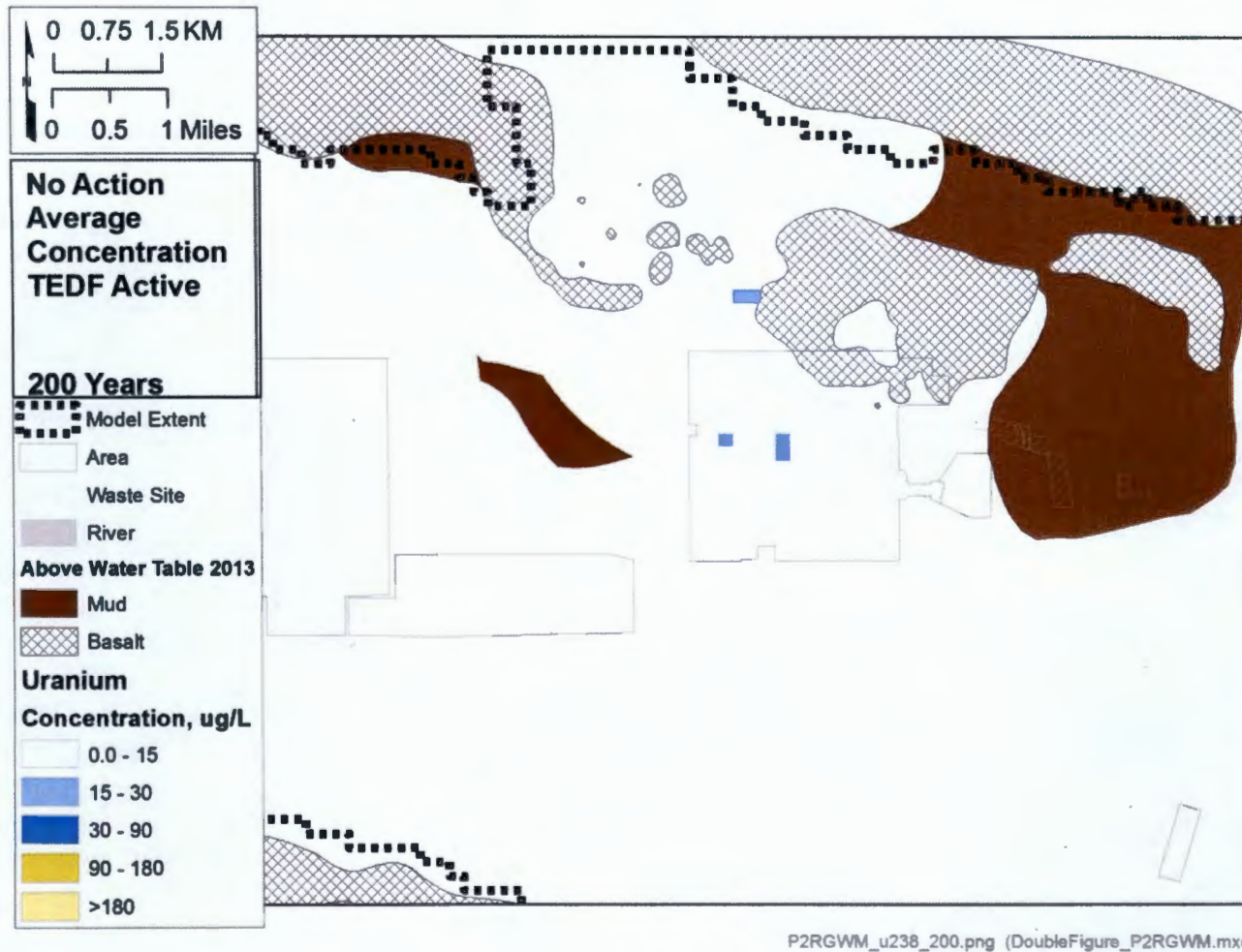
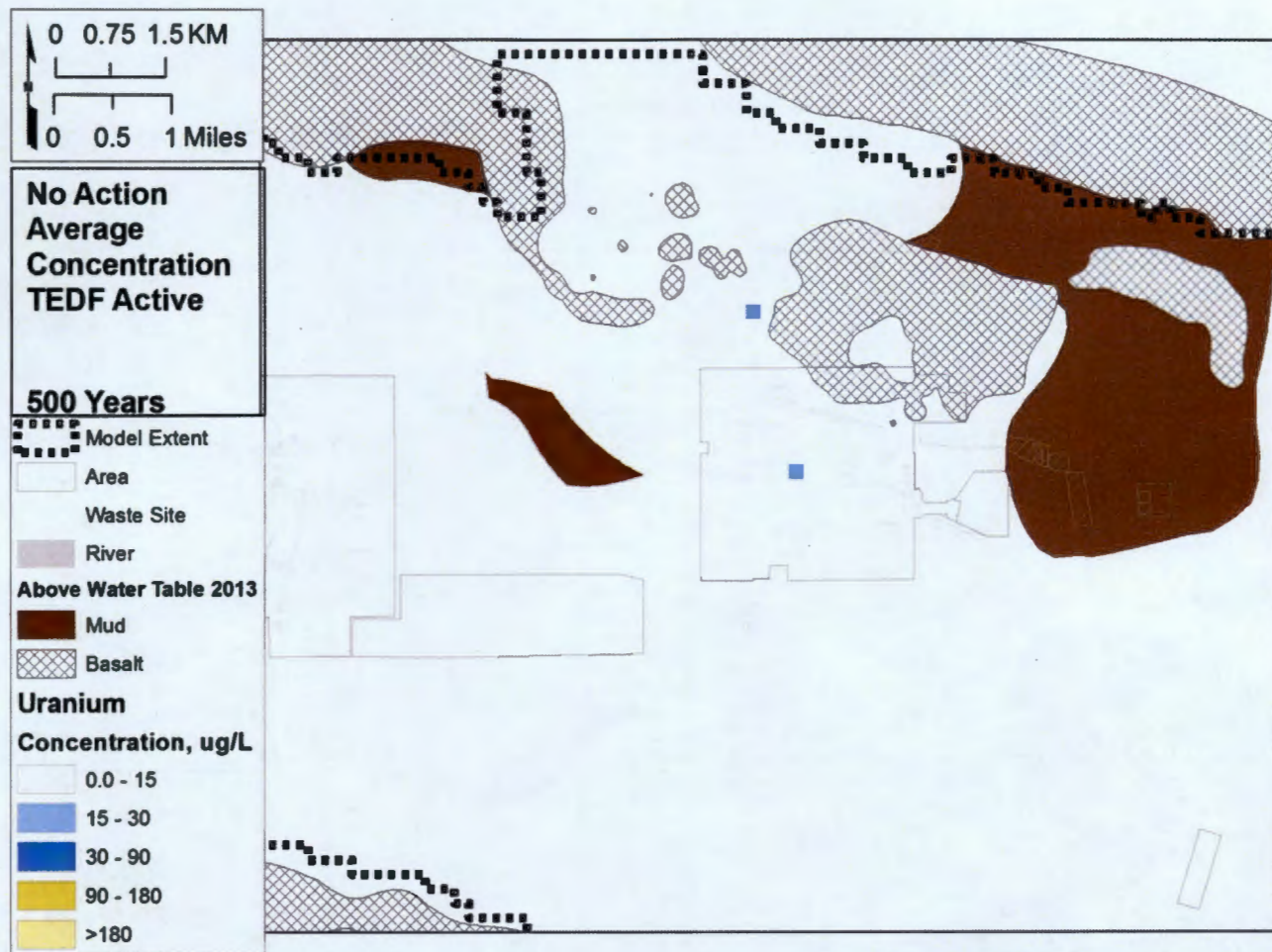


Figure B-237 - Plan view contours of the uranium plume at simulation time 200 years based on the TEDF future use simulation using average concentration initial conditions



P2RGWM_u238_500.png (DoubleFigure_P2RGWM.mxd)

Figure B-238 - Plan view contours of the uranium plume at simulation time 500 years based on the TEDF future use simulation using average concentration initial conditions

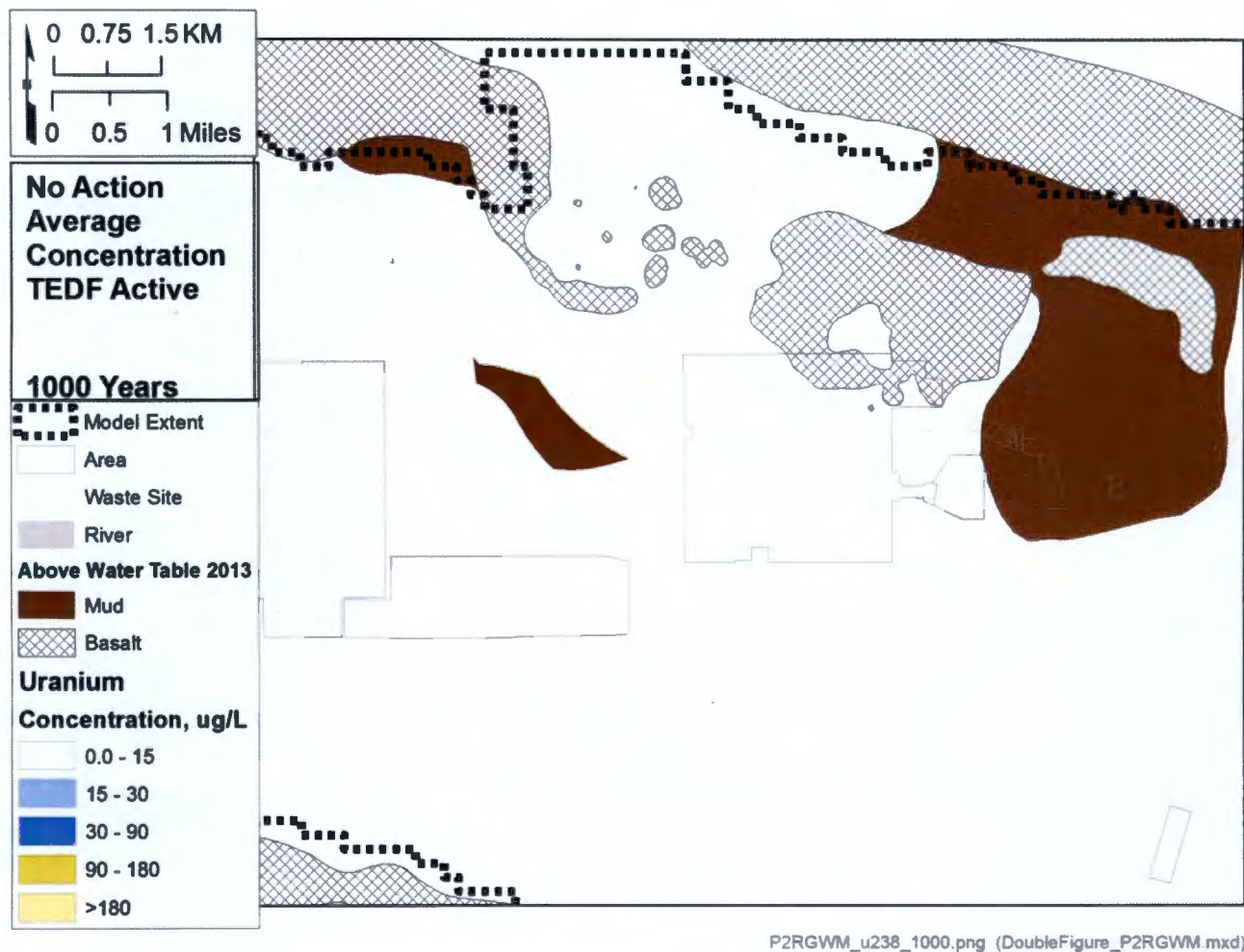


Figure B-239 - Plan view contours of the uranium plume at simulation time 1000 years based on the TEDF future use simulation using average concentration initial conditions

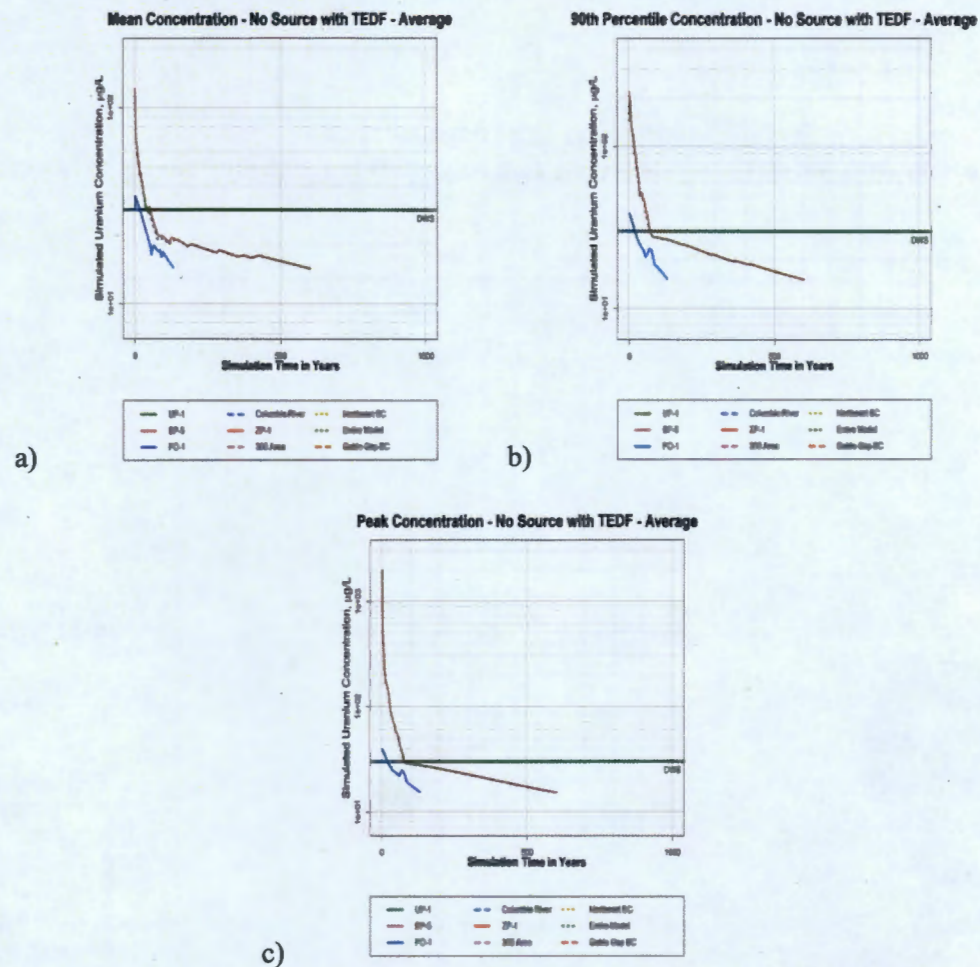
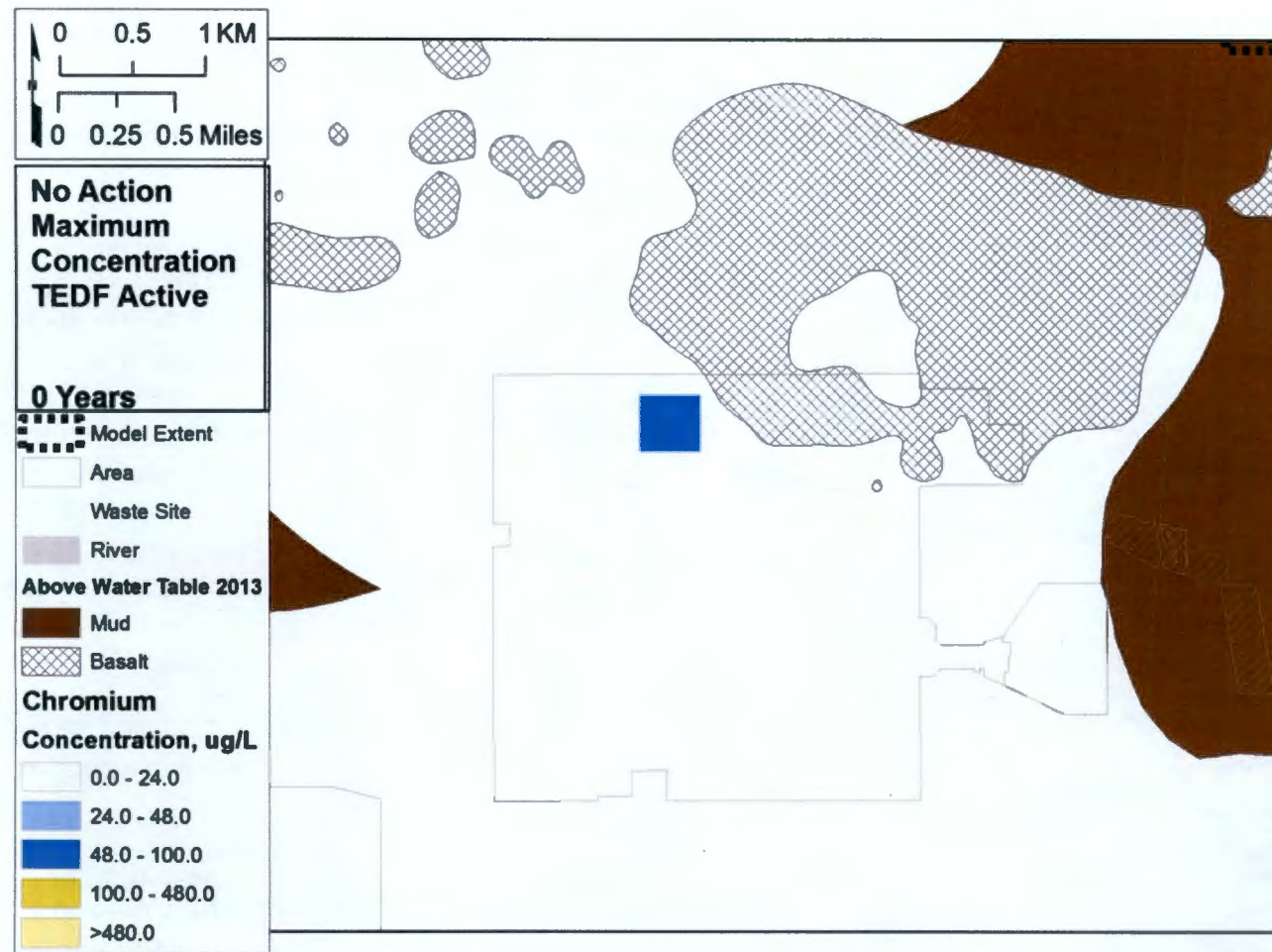
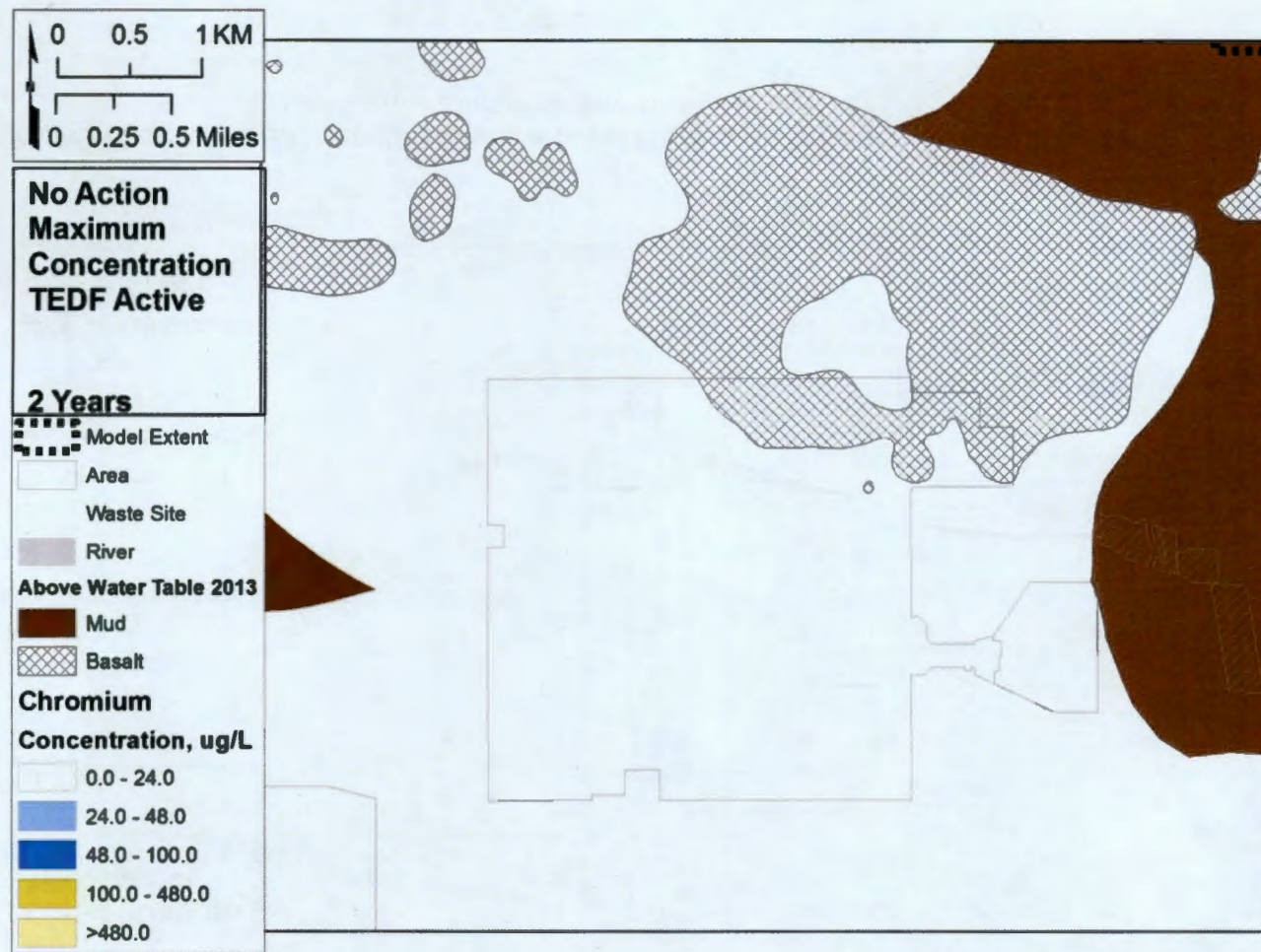


Figure B-240 - Statistical summary of simulated concentration within subregions of the model domain for the uranium plume for the TEDF future use simulation using average concentration initial conditions.



P2RGWM_crv_0.png (DoubleFigure_P2RGWM.mxd)

Figure B-241 - Plan view contours of the hexavalent chromium plume at simulation time 0 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_crvl_2.png (DoubleFigure_P2RGWM.mxd)

Figure B-242 - Plan view contours of the hexavalent chromium plume at simulation time 2 years based on the TEDF future use simulation using maximum concentration initial conditions



Figure B-243 - Plan view contours of the hexavalent chromium plume at simulation time 5 years based on the TEDF future use simulation using maximum concentration initial conditions

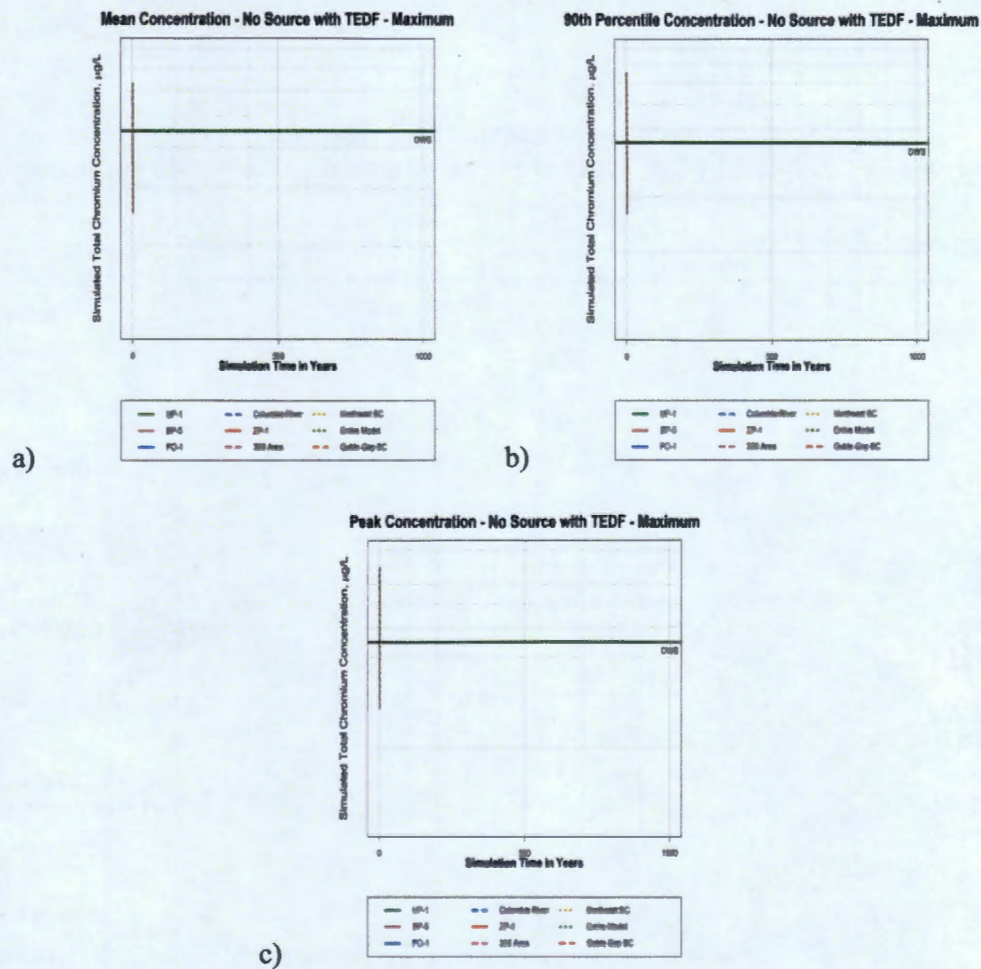


Figure B-244 - Statistical summary of simulated concentration within subregions of the model domain for the hexavalent chromium plume for the TEDF future use simulation using maximum concentration initial conditions.

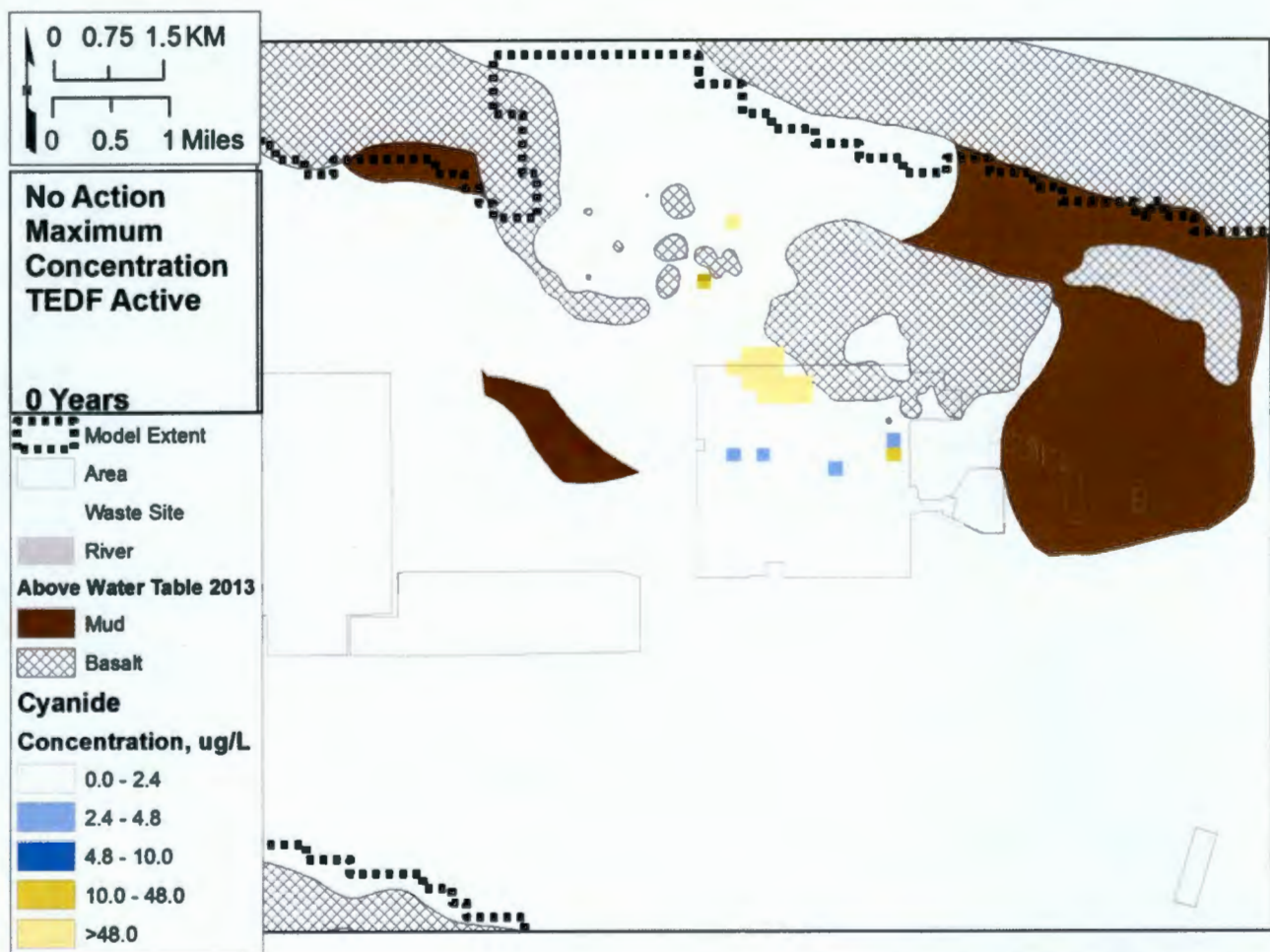


Figure B-245 - Plan view contours of the cyanide plume at simulation time 0 years based on the TEDF future use simulation using maximum concentration initial conditions

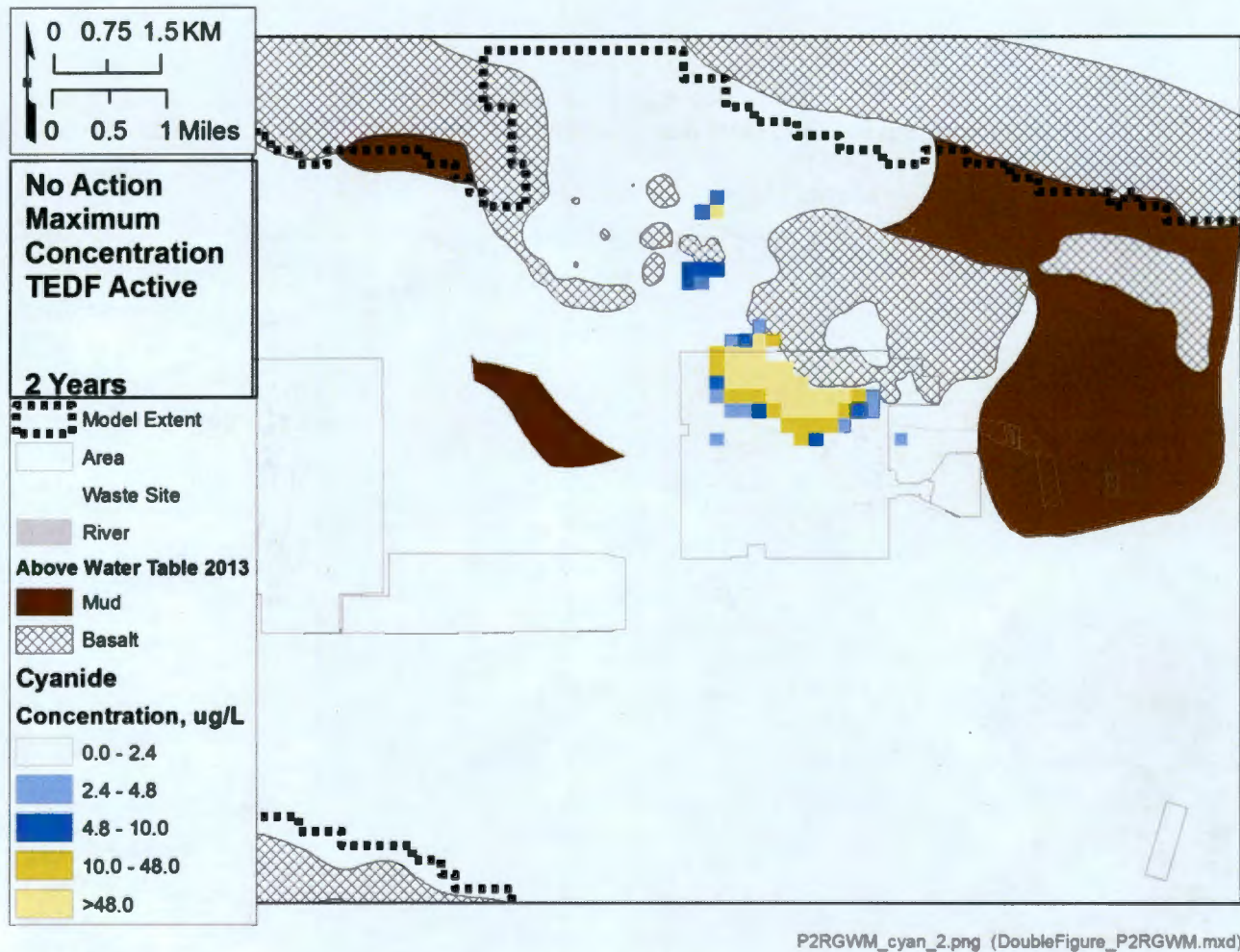
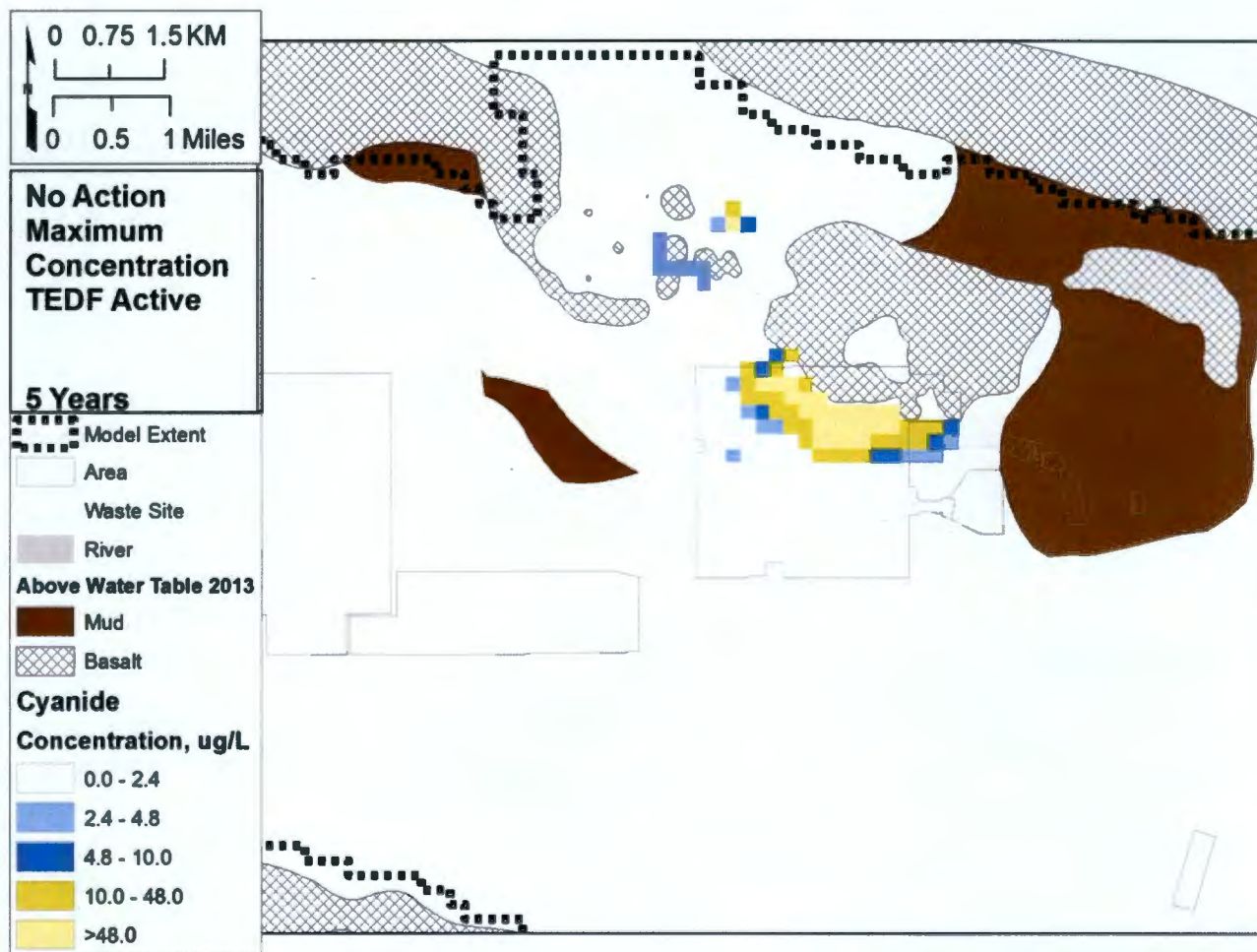


Figure B-246 - Plan view contours of the cyanide plume at simulation time 2 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_cyan_5.png (DoubleFigure_P2RGWM.mxd)

Figure B-247 - Plan view contours of the cyanide plume at simulation time 5 years based on the TEDF future use simulation using maximum concentration initial conditions

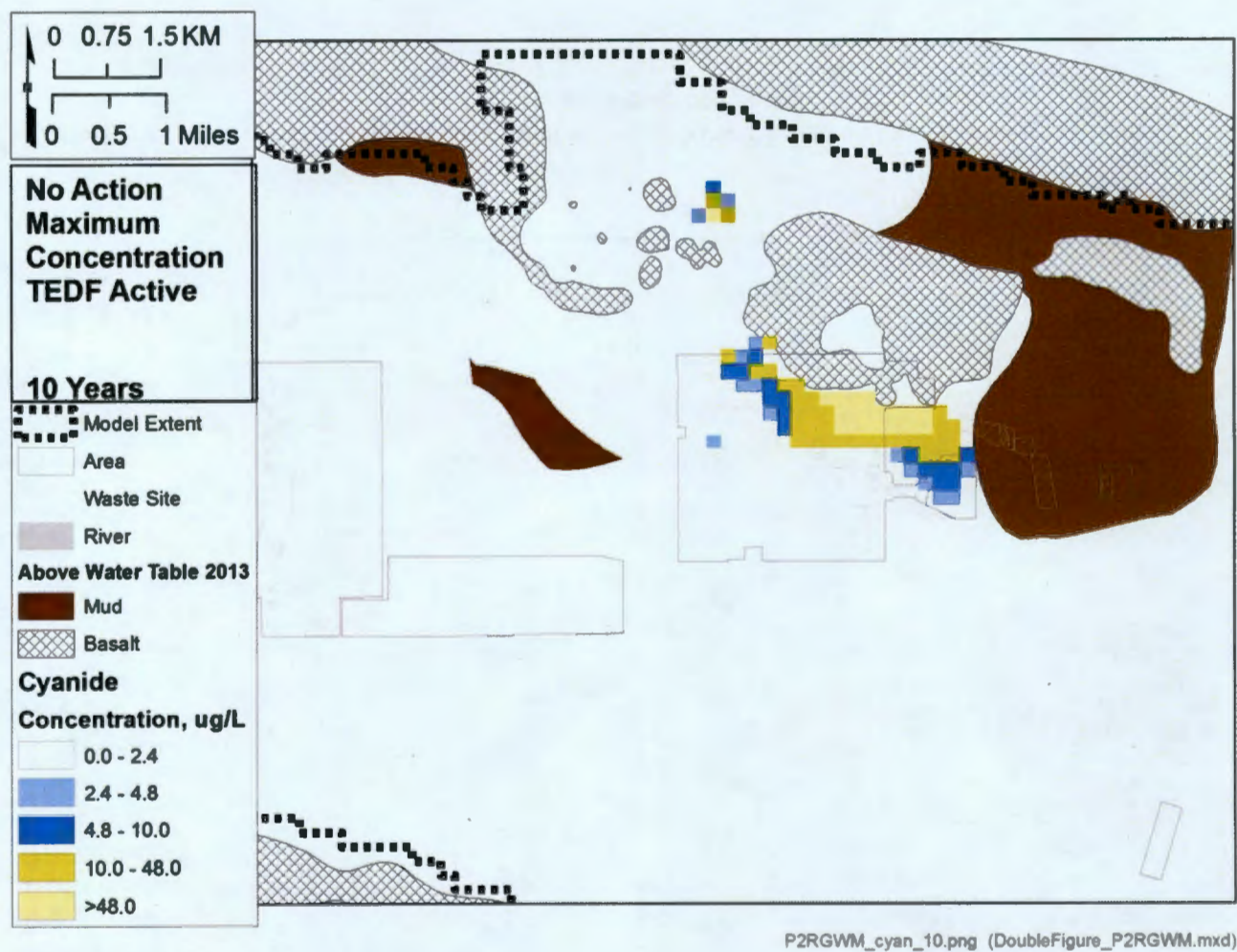
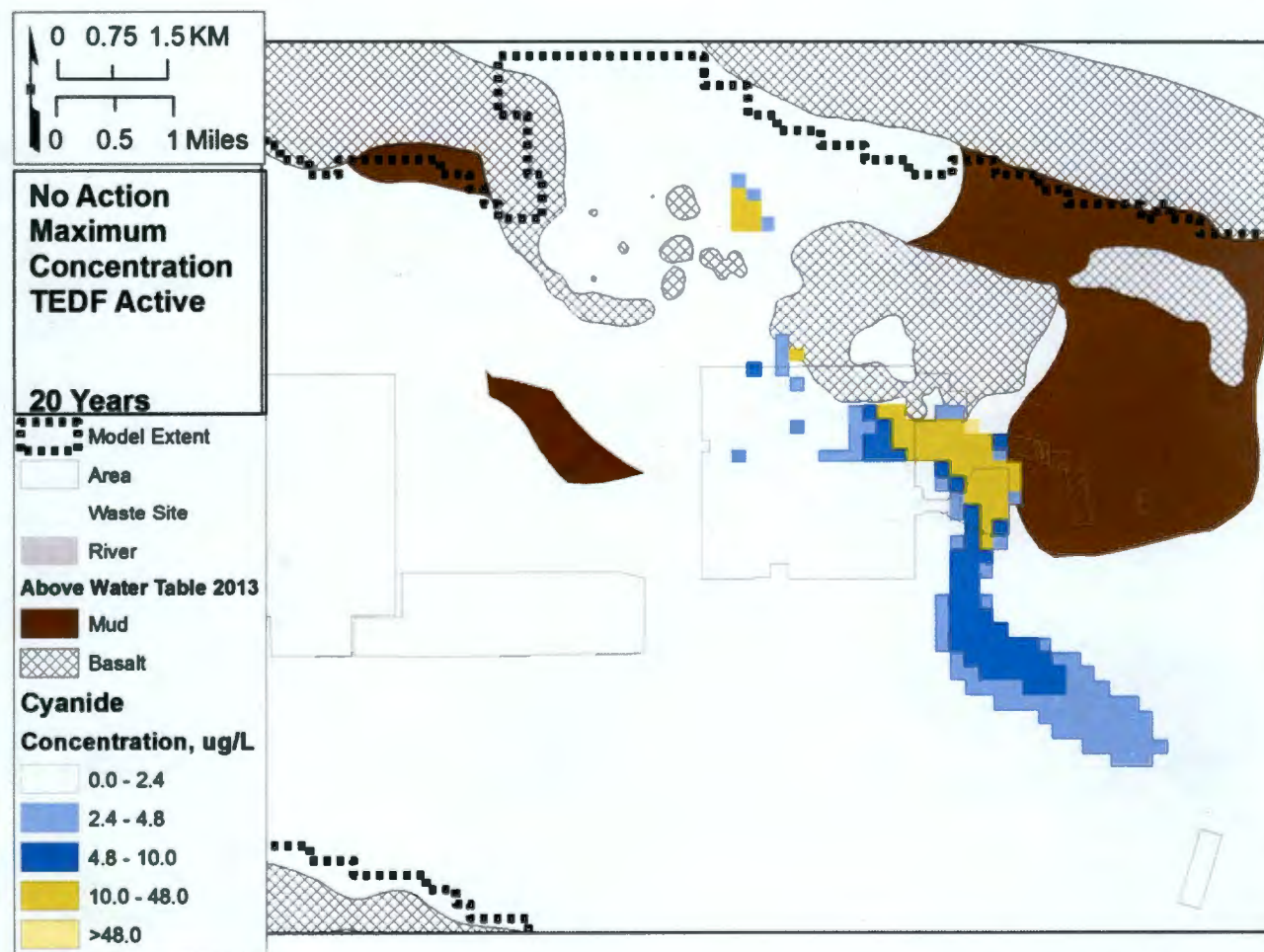
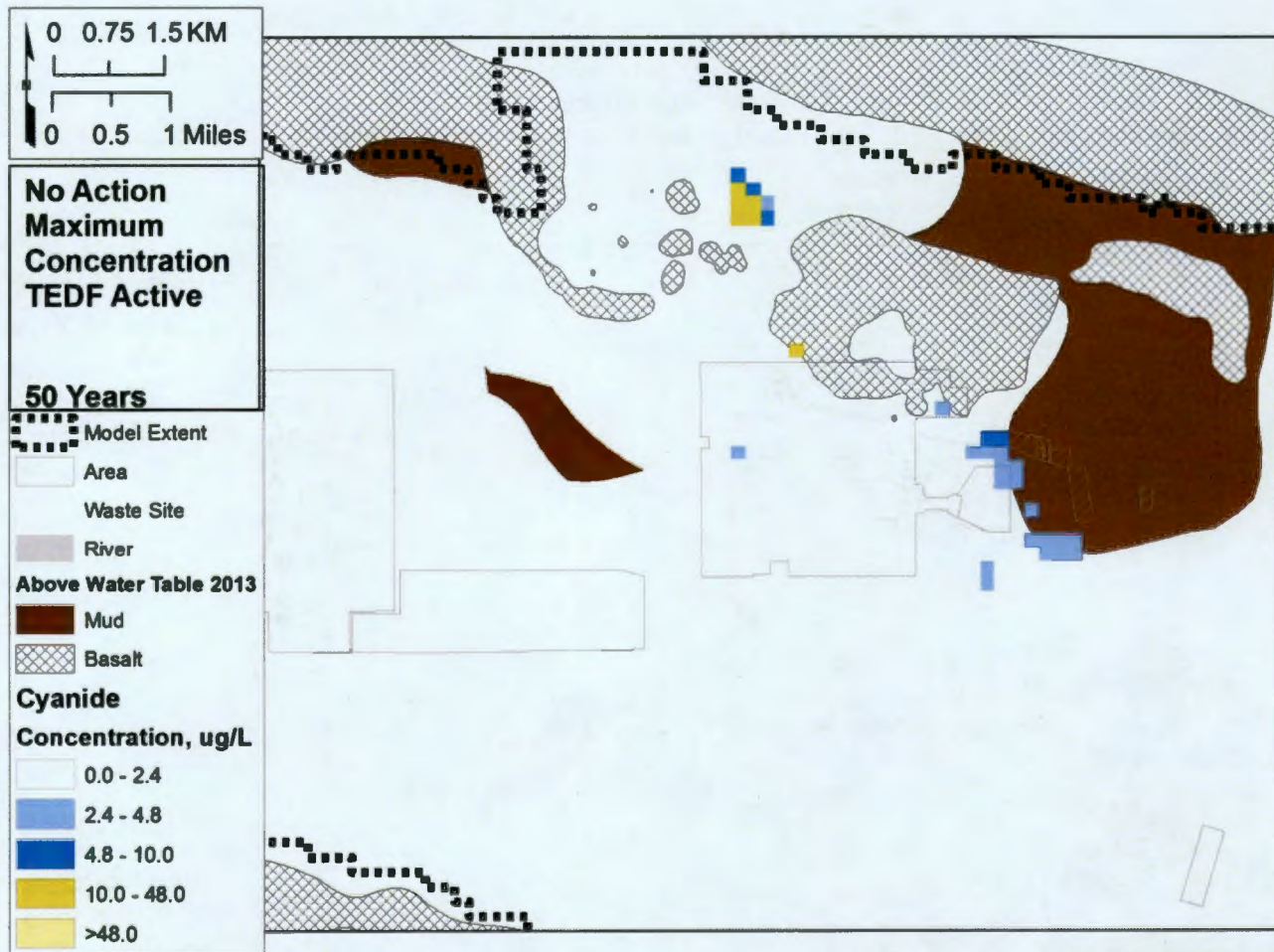


Figure B-248 - Plan view contours of the cyanide plume at simulation time 10 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_cyan_20.png (DoubleFigure_P2RGWM.mxd)

Figure B-249 - Plan view contours of the cyanide plume at simulation time 20 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_cyan_50.png (DoubleFigure_P2RGWM.mxd)

Figure B-250 - Plan view contours of the cyanide plume at simulation time 50 years based on the TEDF future use simulation using maximum concentration initial conditions

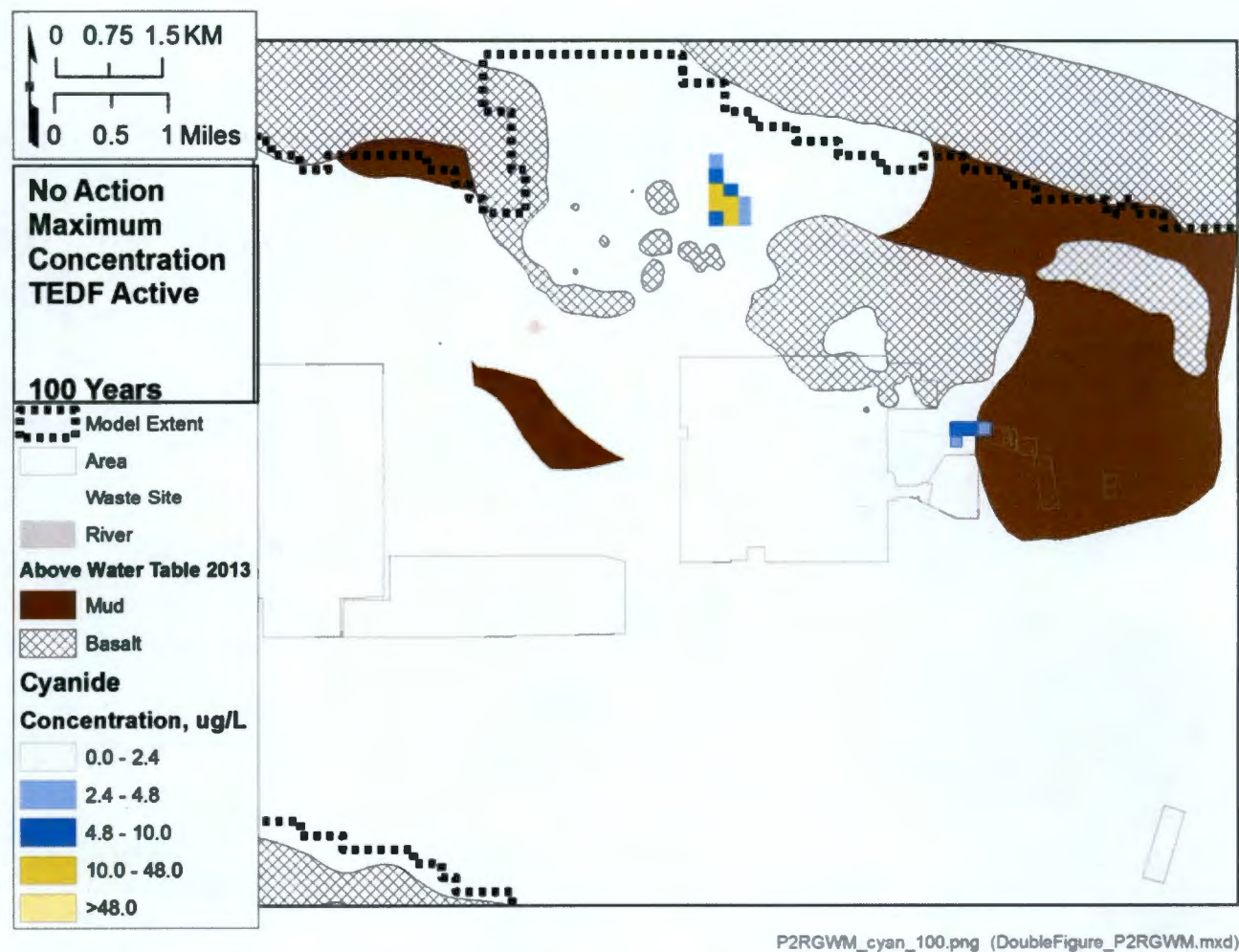


Figure B-251 - Plan view contours of the cyanide plume at simulation time 100 years based on the TEDF future use simulation using maximum concentration initial conditions

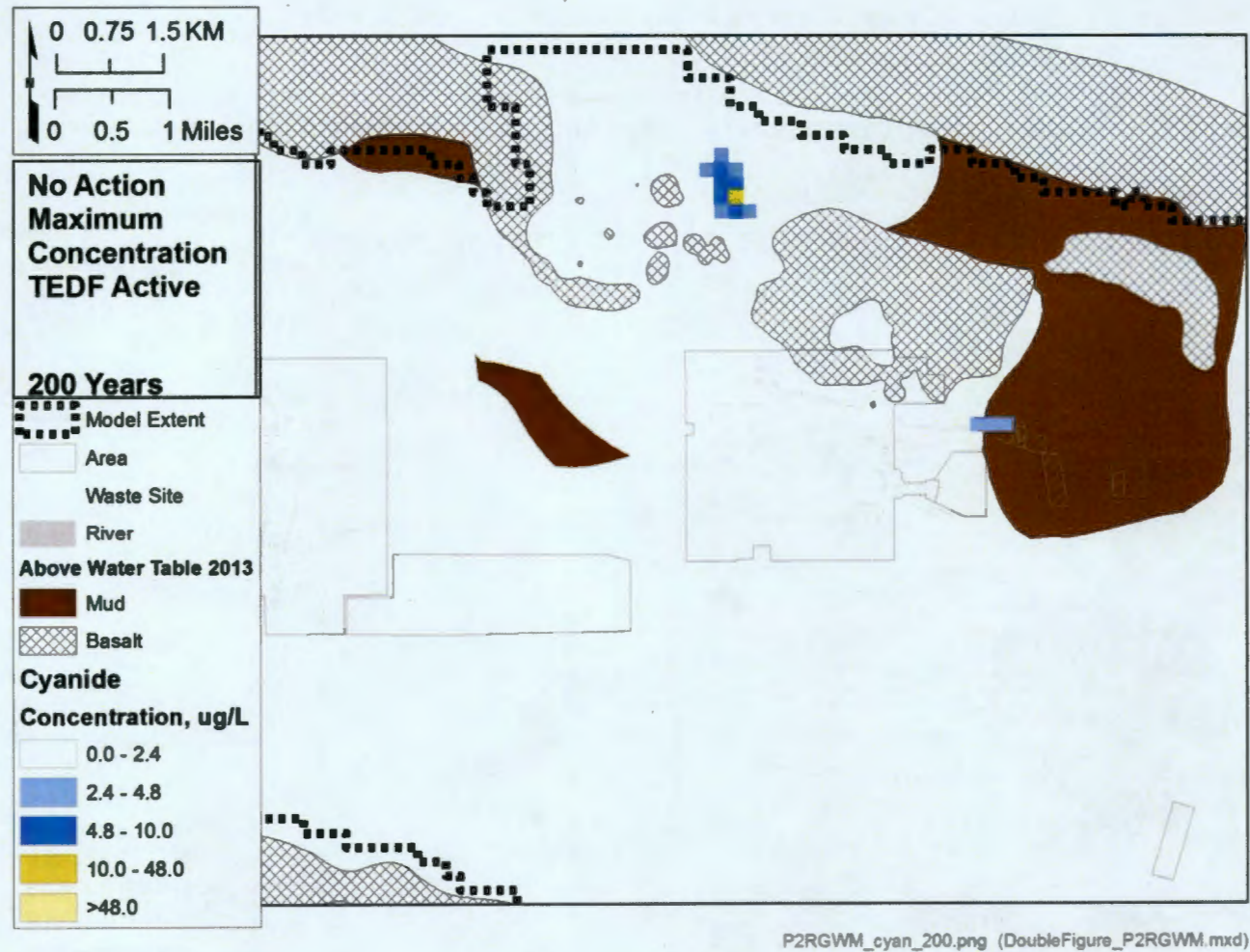
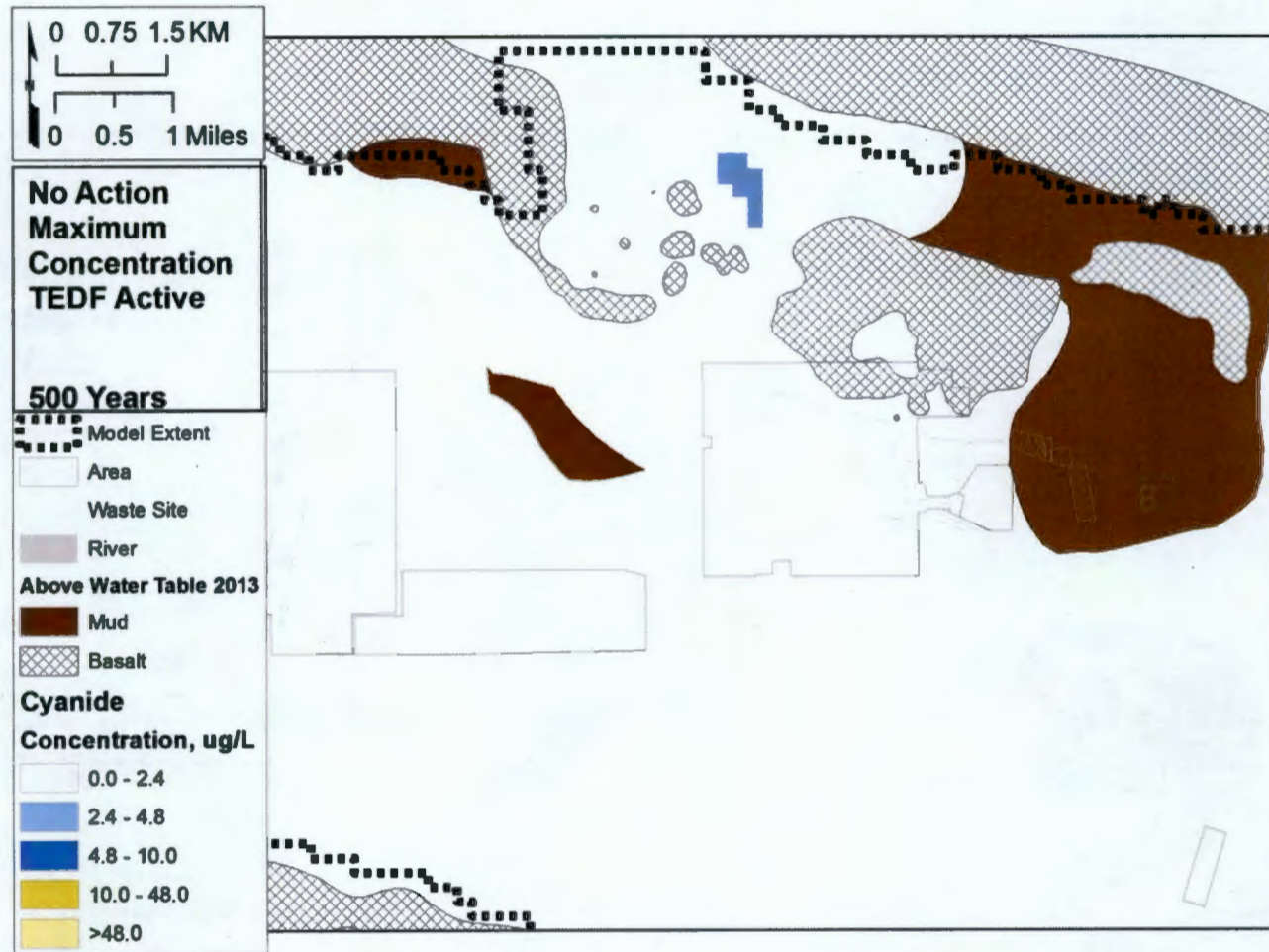
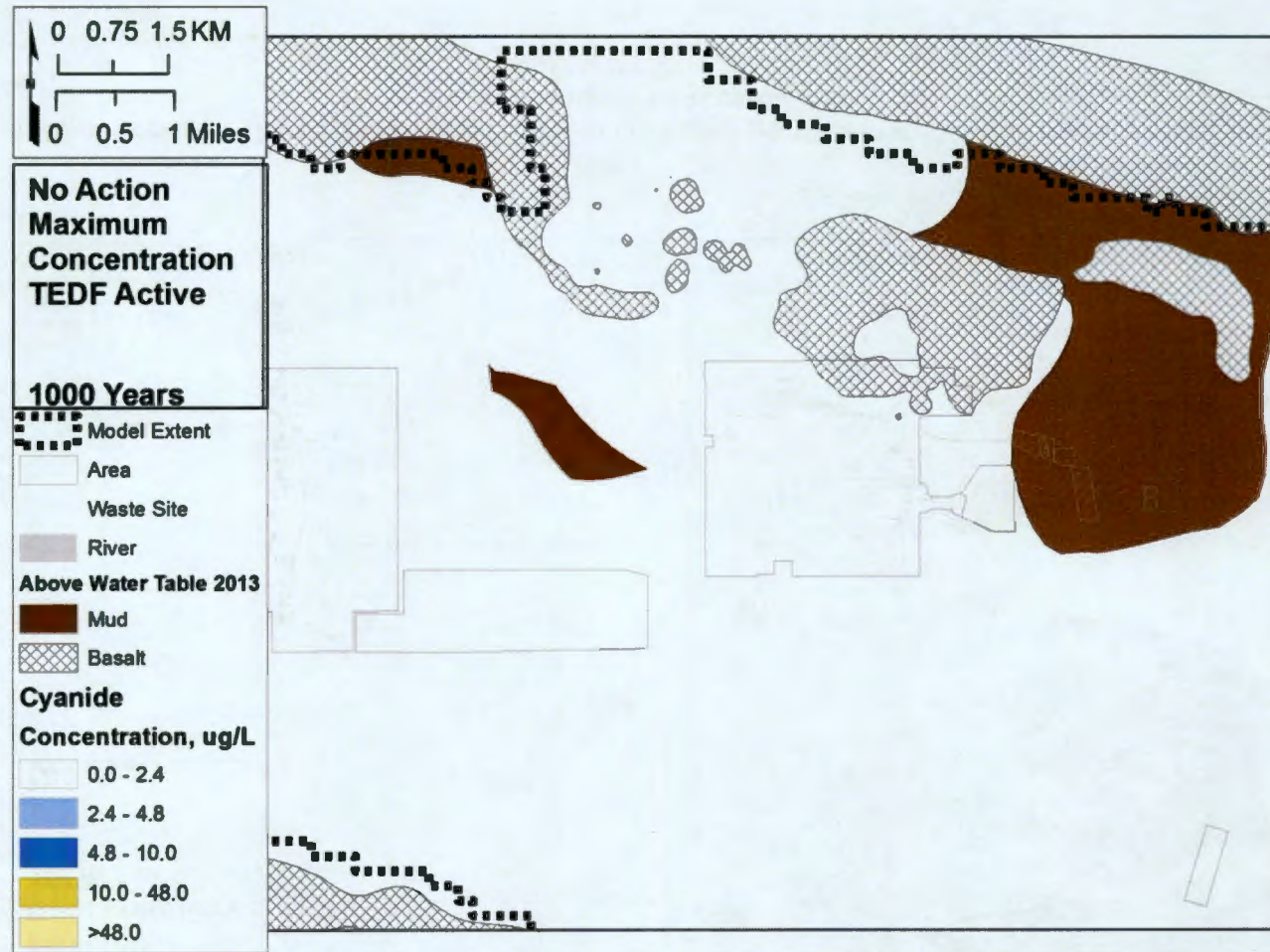


Figure B-252 - Plan view contours of the cyanide plume at simulation time 200 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_cyan_500.png (DoubleFigure_P2RGWM.mxd)

Figure B-253 - Plan view contours of the cyanide plume at simulation time 500 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_cyan_1000.png (DoubleFigure_P2RGWM.mxd)

Figure B-254 - Plan view contours of the cyanide plume at simulation time 1000 years based on the TEDF future use simulation using maximum concentration initial conditions

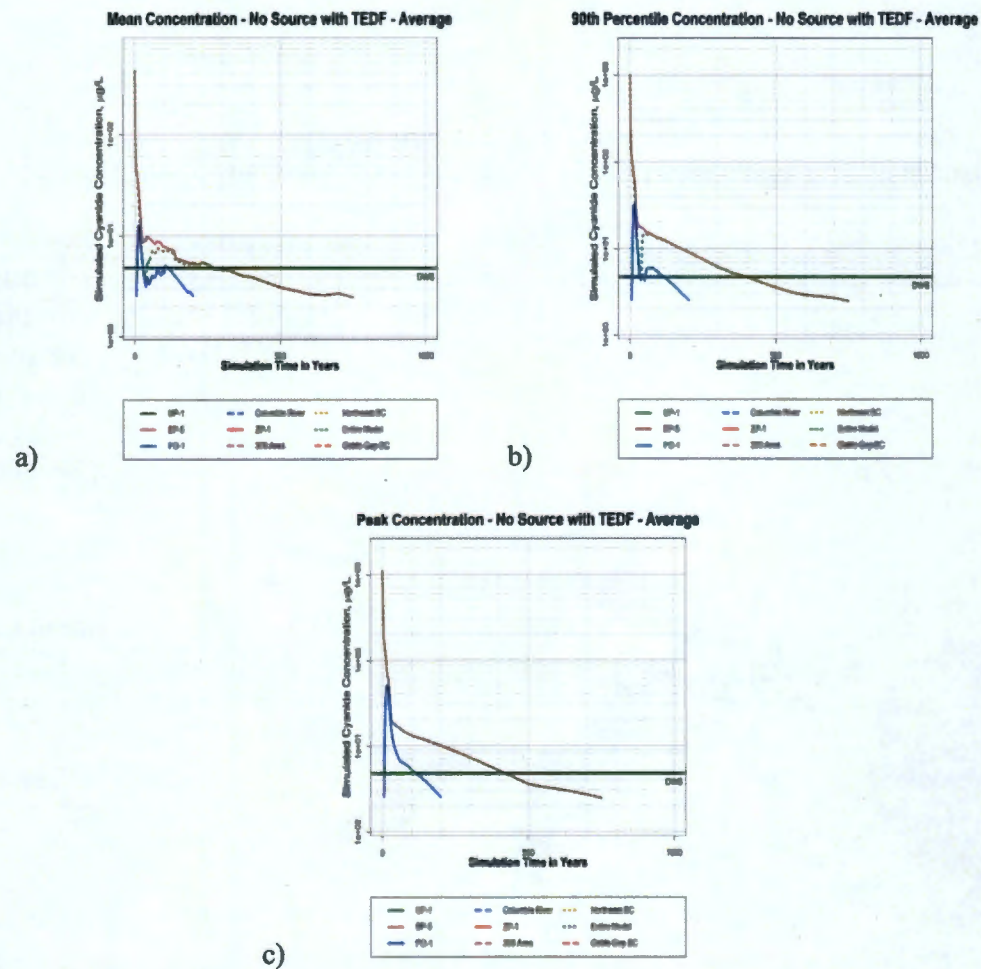


Figure B-255 - Statistical summary of simulated concentration within subregions of the model domain for the cyanide plume for the TEDF future use simulation using maximum concentration initial conditions.

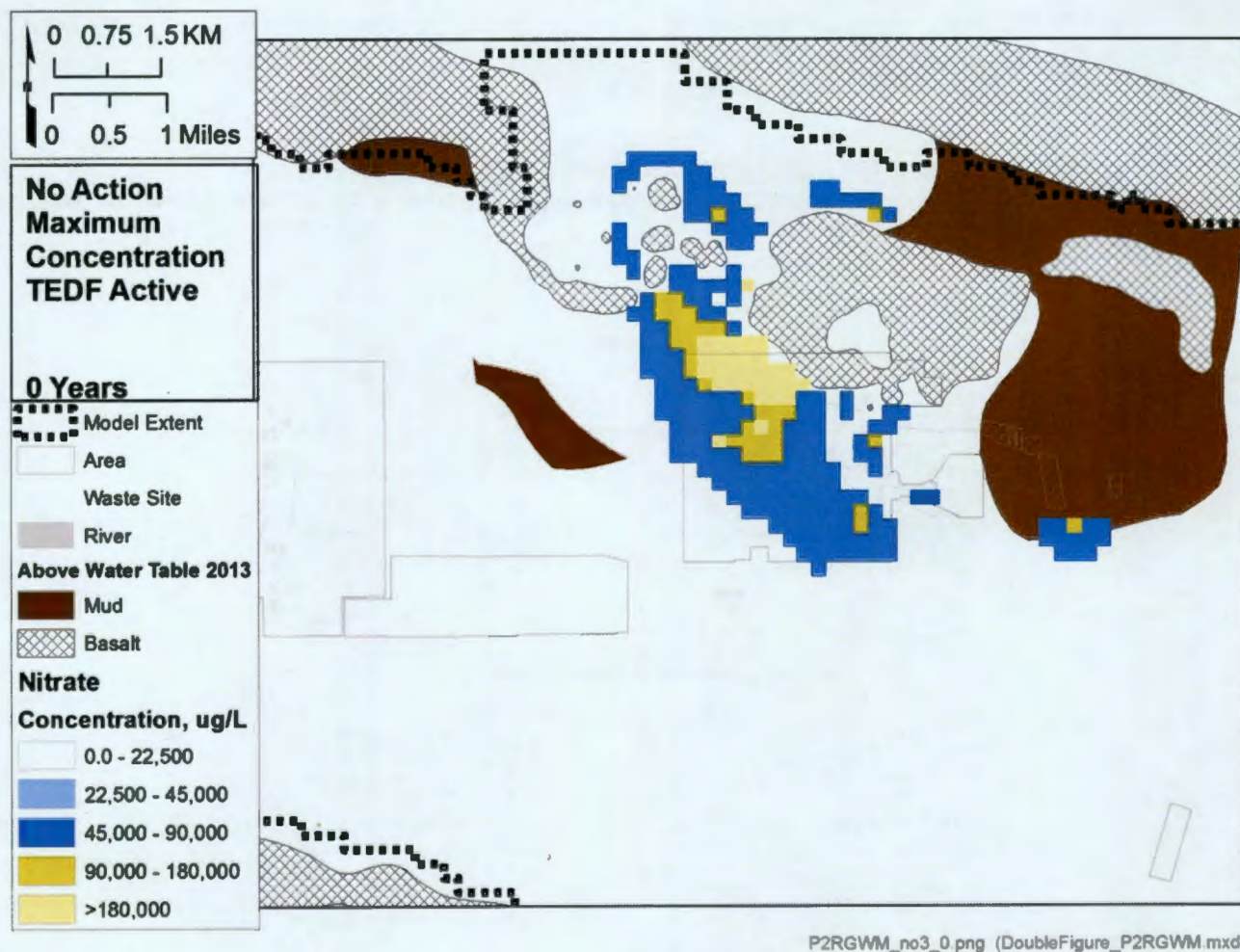
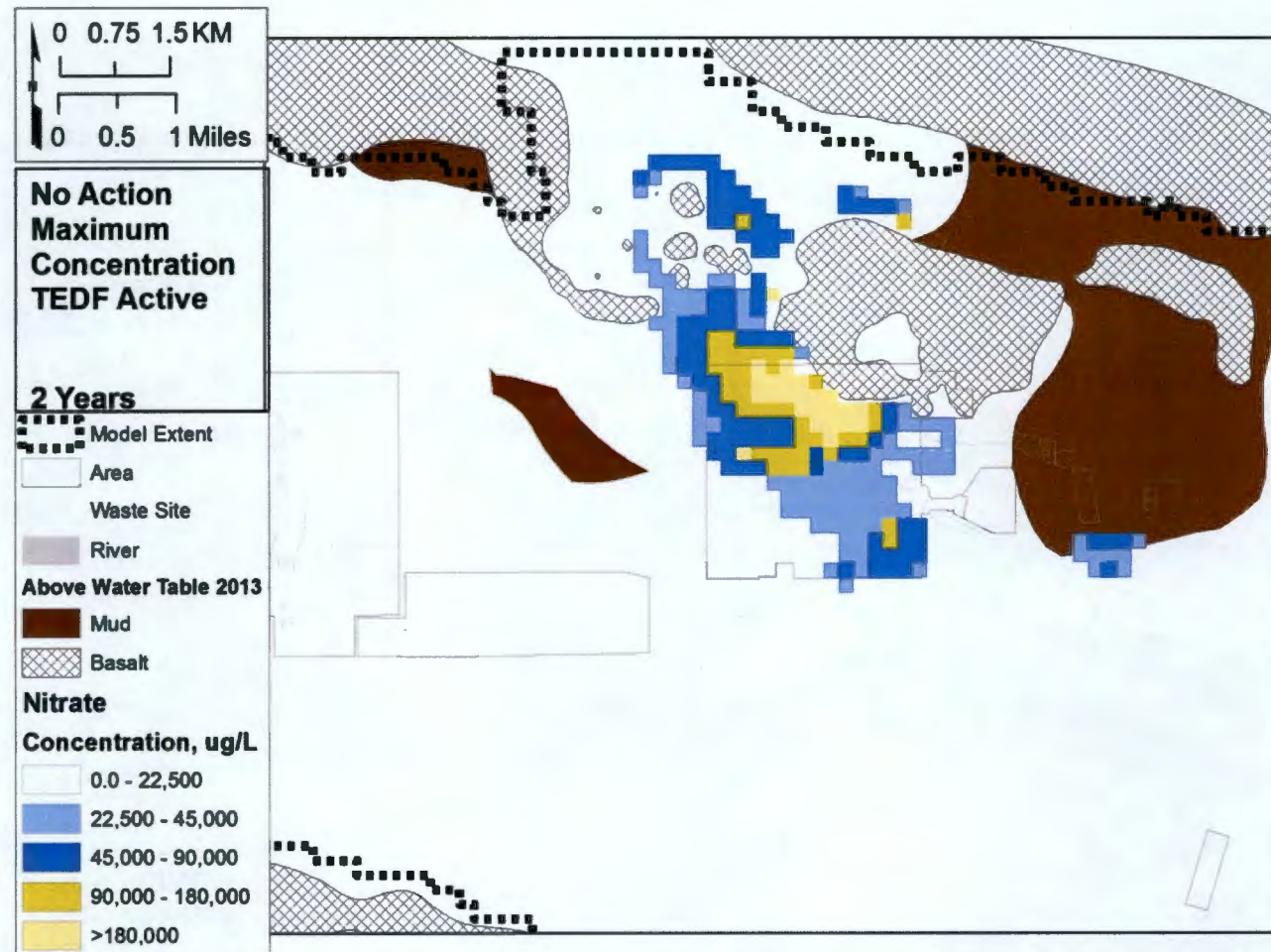
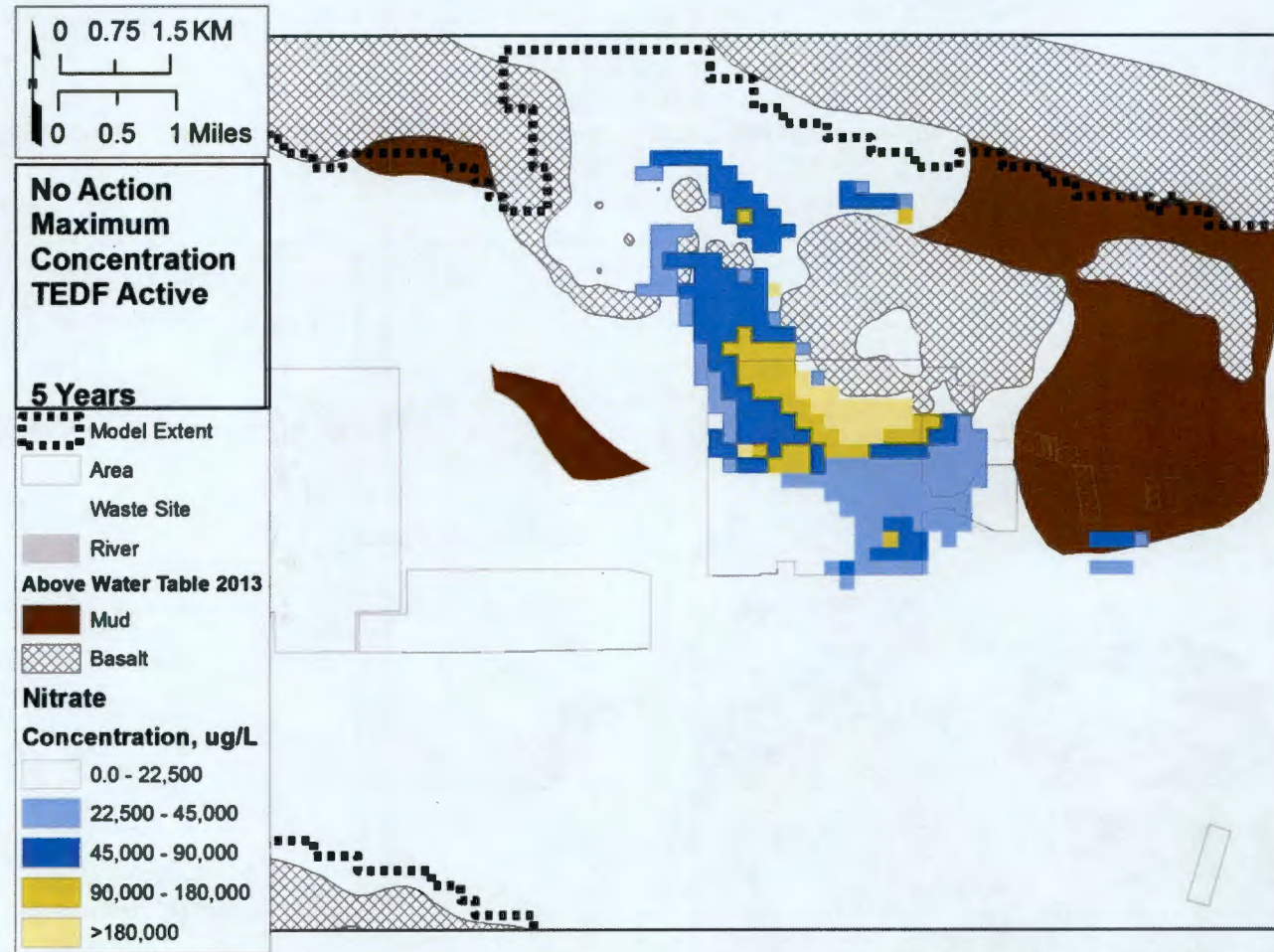


Figure B-256 - Plan view contours of the nitrate plume at simulation time 0 years based on the TEDF future use simulation using maximum concentration initial conditions



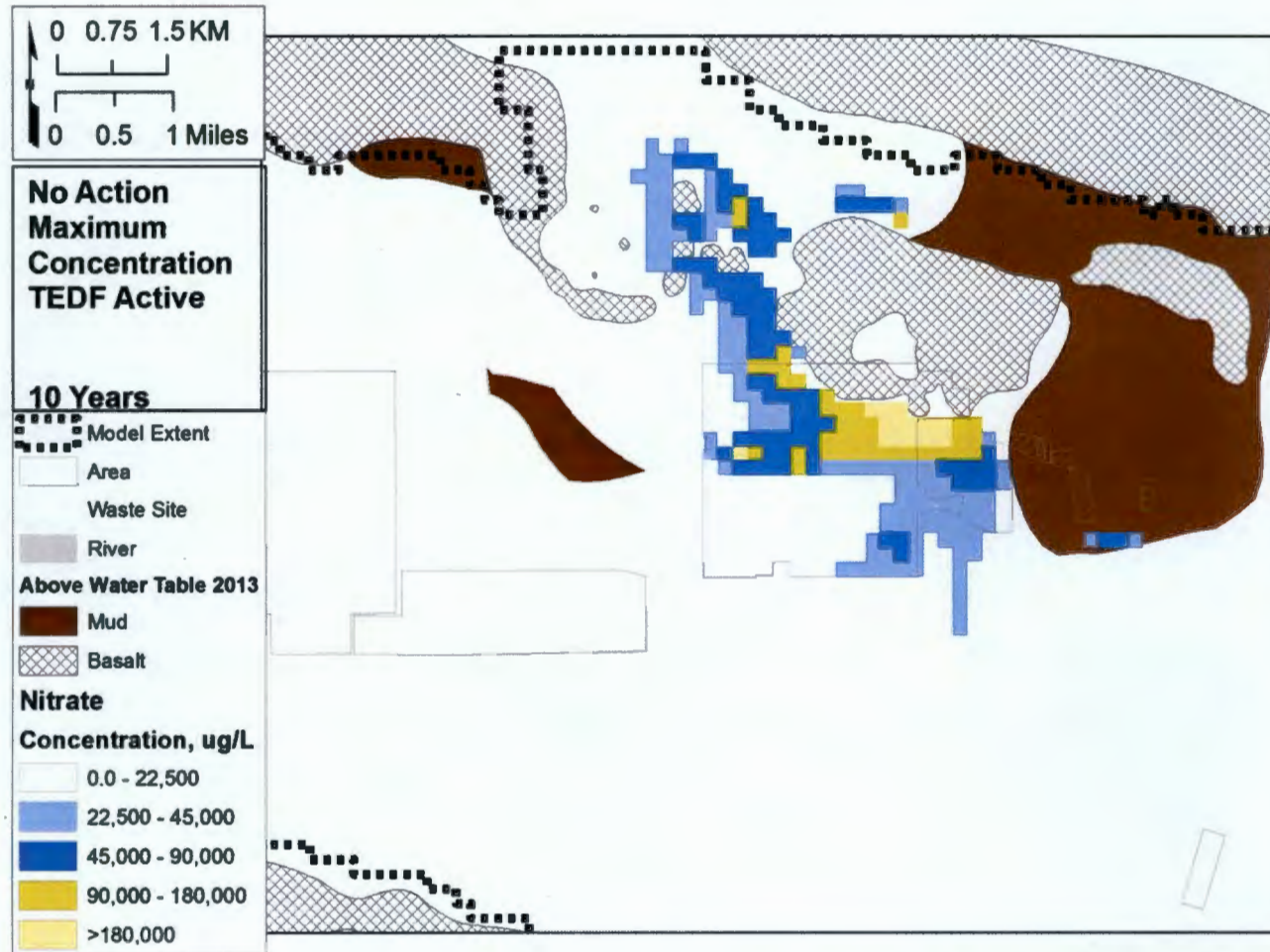
P2RGWM_no3_2.png (DoubleFigure_P2RGWM.mxd)

Figure B-257 - Plan view contours of the nitrate plume at simulation time 2 years based on the TEDF future use simulation using maximum concentration initial conditions



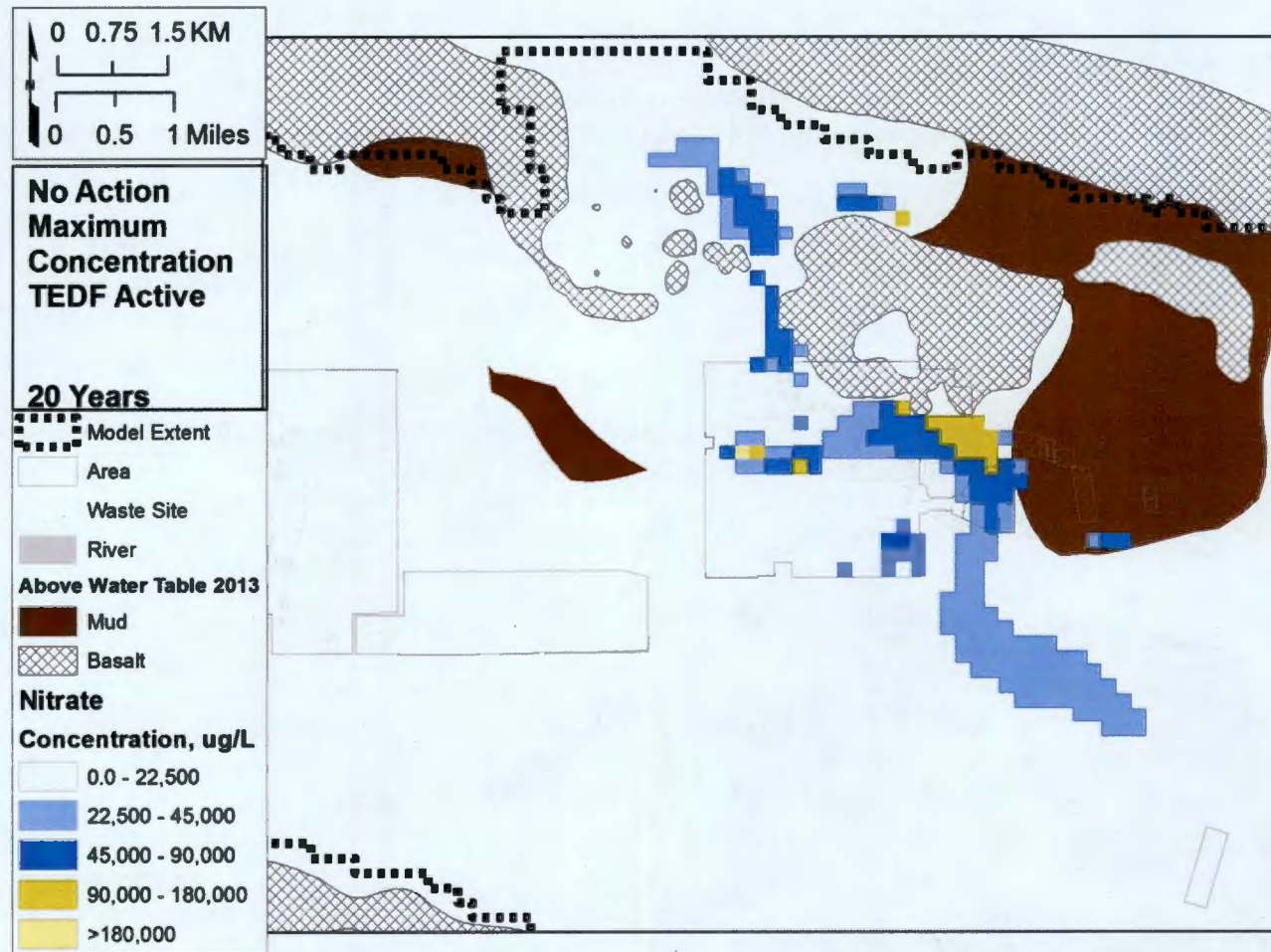
P2RGWM_no3_5.png (DoubleFigure_P2RGWM.mxd)

Figure B-258 - Plan view contours of the nitrate plume at simulation time 5 years based on the TEDF future use simulation using maximum concentration initial conditions



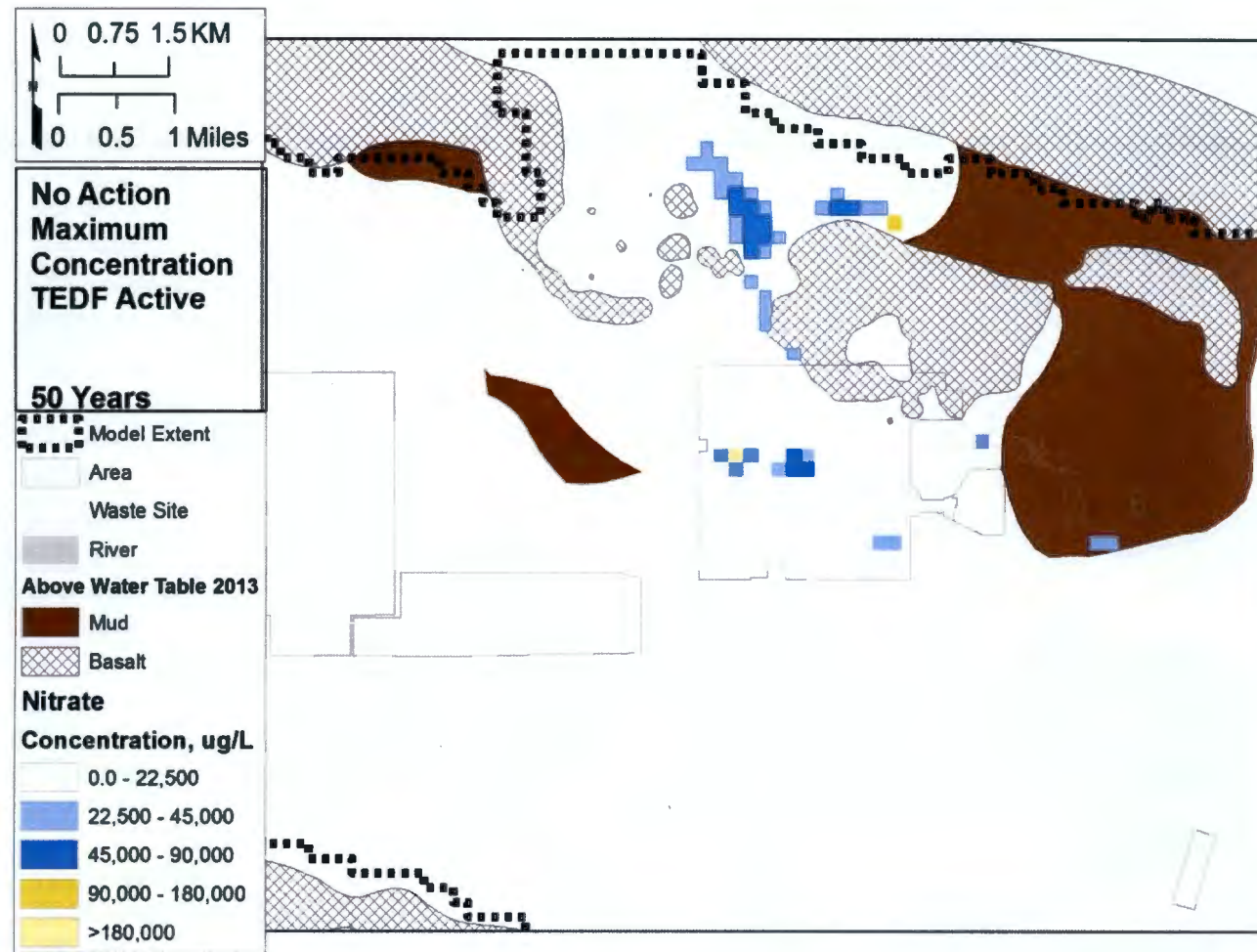
P2RGWM_no3_10.png (DoubleFigure_P2RGWM.mxd)

Figure B-259 - Plan view contours of the nitrate plume at simulation time 10 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_no3_20.png (DoubleFigure_P2RGWM.mxd)

Figure B-260 - Plan view contours of the nitrate plume at simulation time 20 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_no3_50.png (DoubleFigure_P2RGWM.mxd)

Figure B-261 - Plan view contours of the nitrate plume at simulation time 50 years based on the TEDF future use simulation using maximum concentration initial conditions

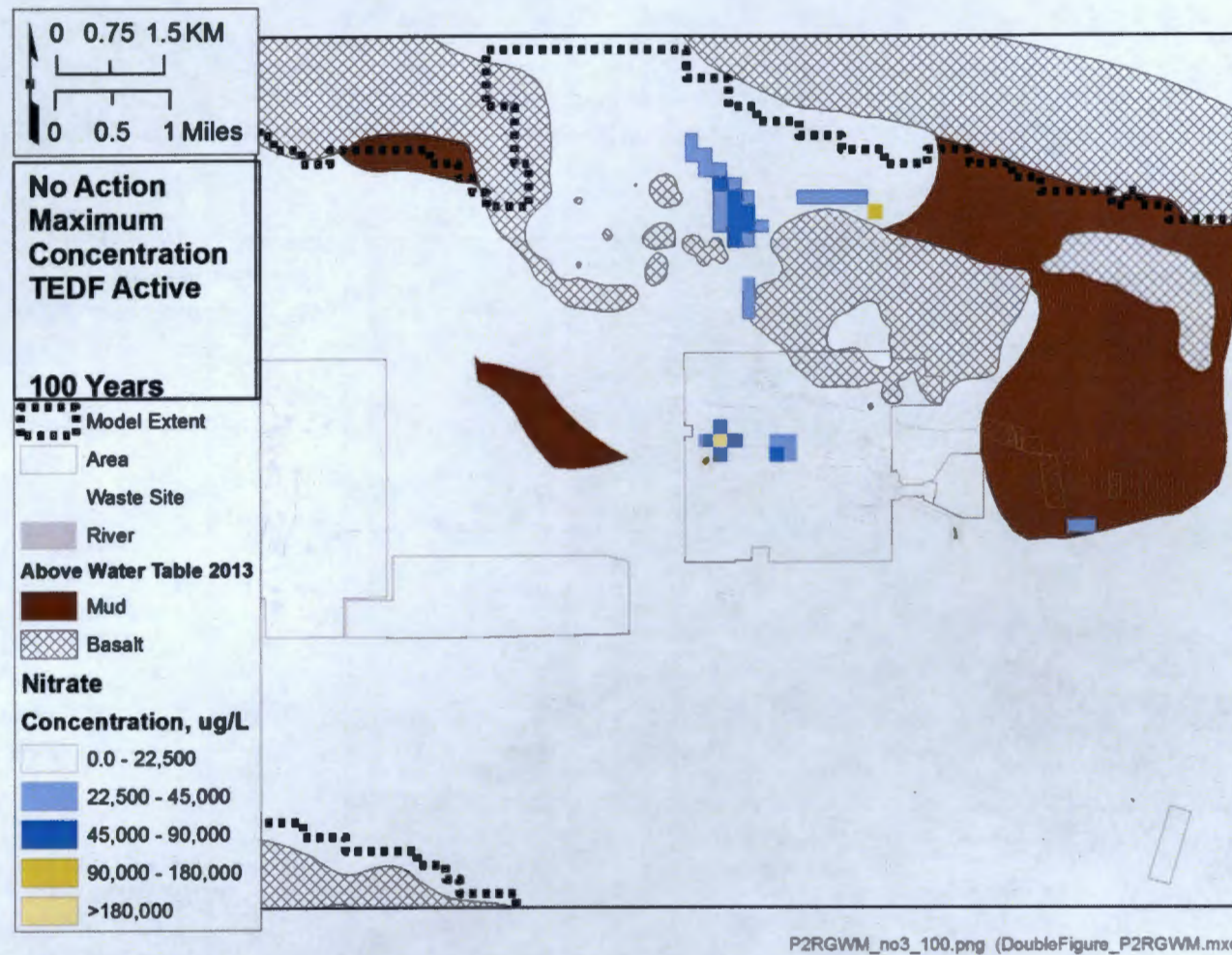
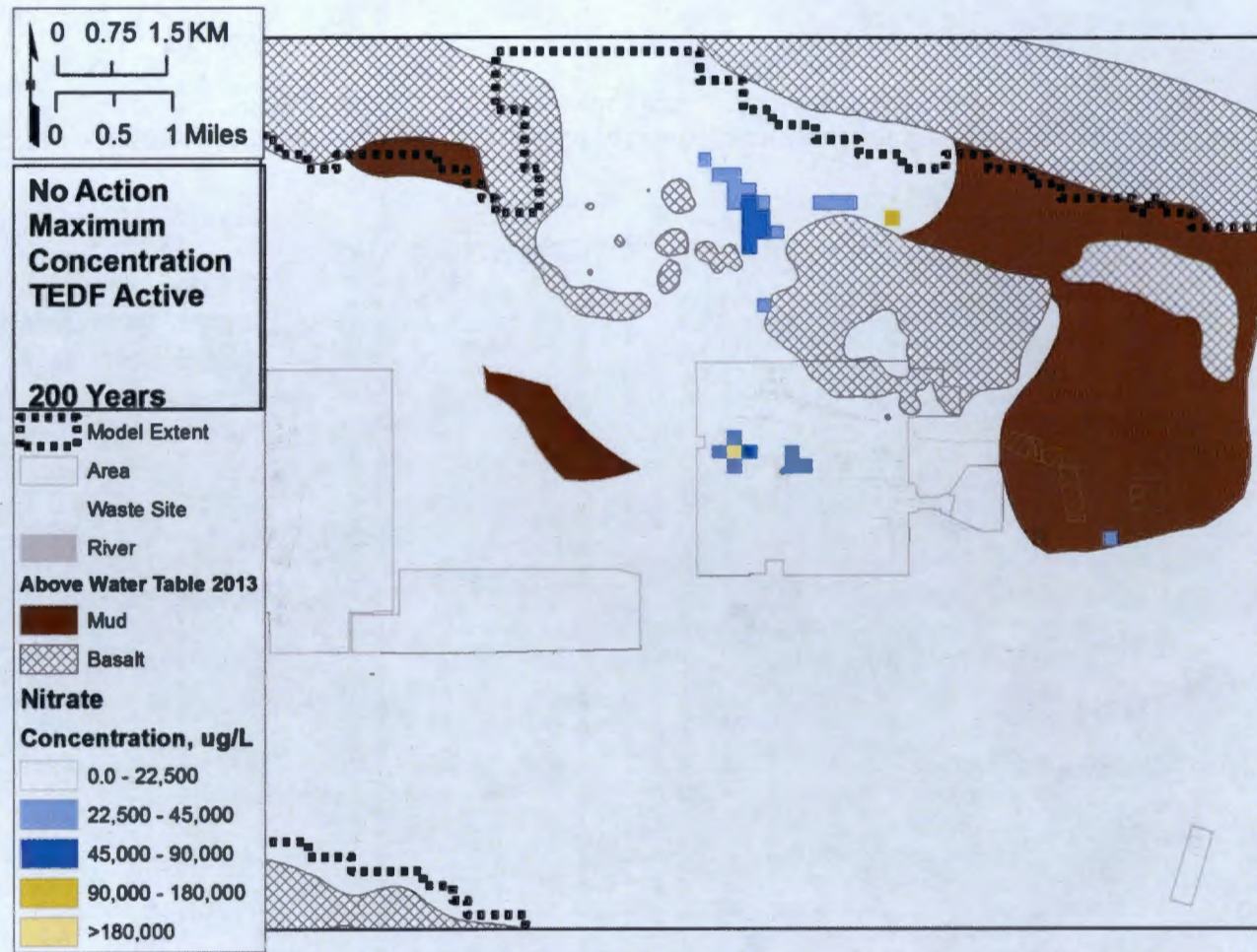


Figure B-262 - Plan view contours of the nitrate plume at simulation time 100 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_no3_200.png (DoubleFigure_P2RGWM.mxd)

Figure B-263 - Plan view contours of the nitrate plume at simulation time 200 years based on the TEDF future use simulation using maximum concentration initial conditions

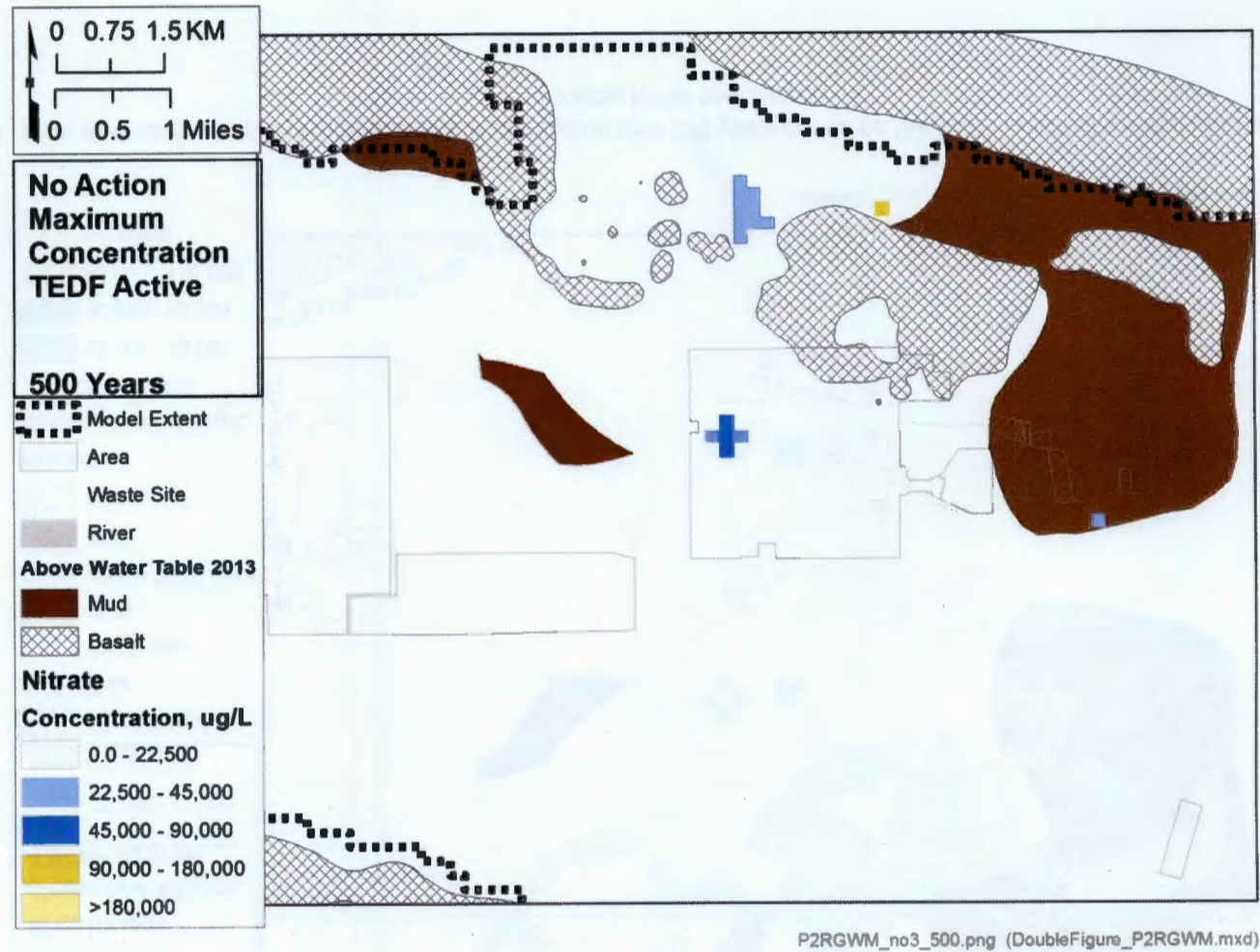


Figure B-264 - Plan view contours of the nitrate plume at simulation time 500 years based on the TEDF future use simulation using maximum concentration initial conditions

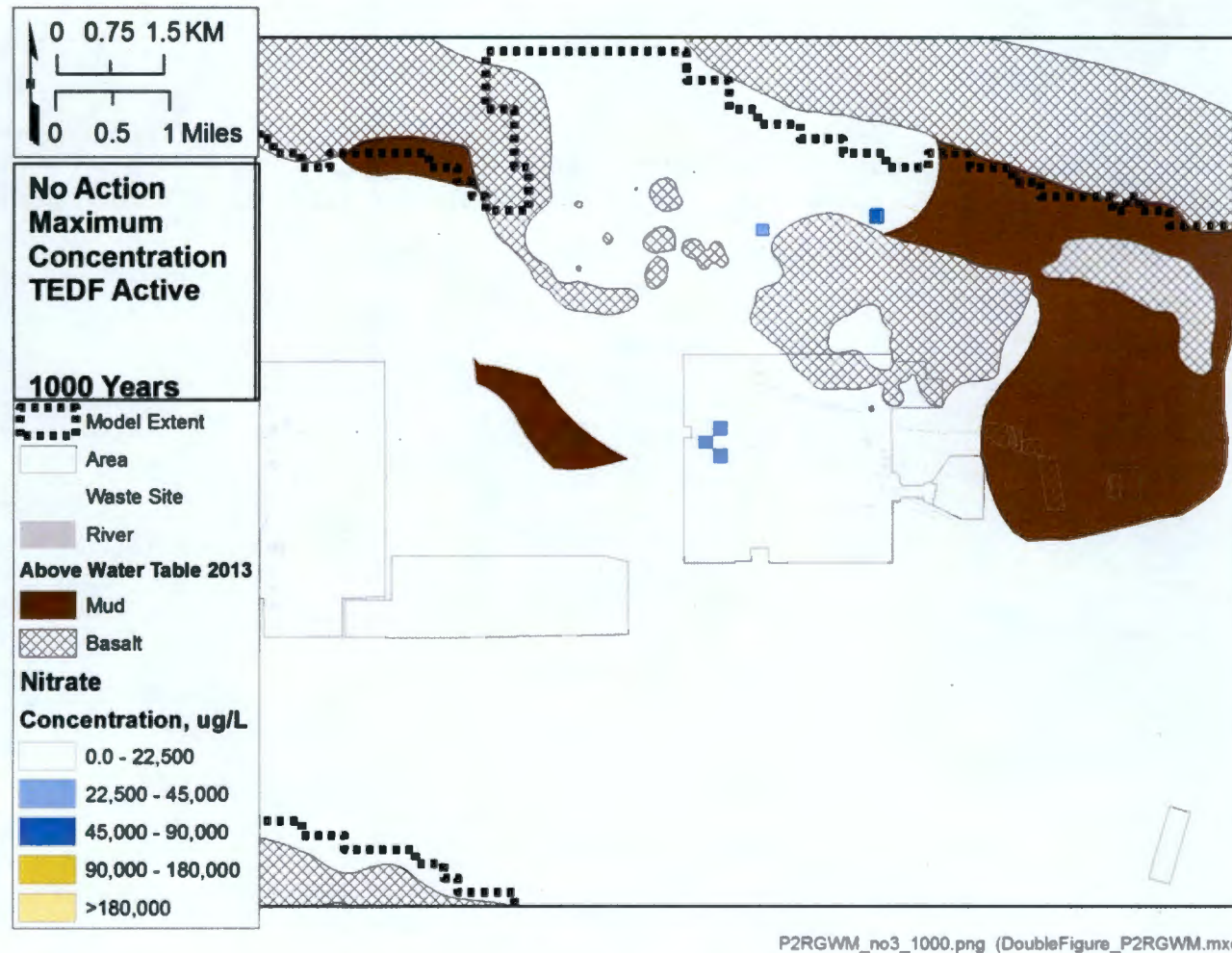


Figure B-265 - Plan view contours of the nitrate plume at simulation time 1000 years based on the TEDF future use simulation using maximum concentration initial conditions

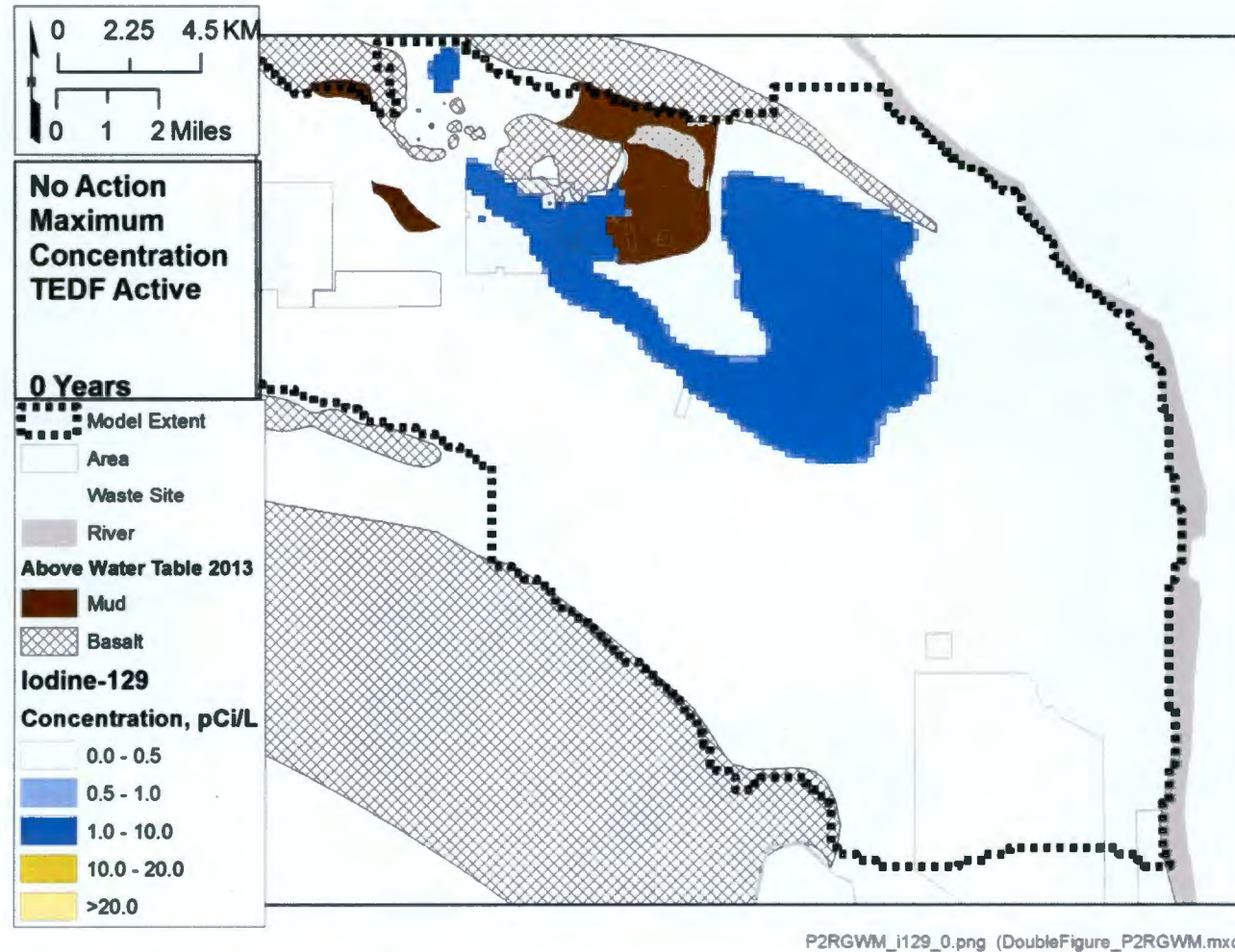


Figure B-267 - Plan view contours of the iodine-129 plume at simulation time 0 years based on the TEDF future use simulation using maximum concentration initial conditions

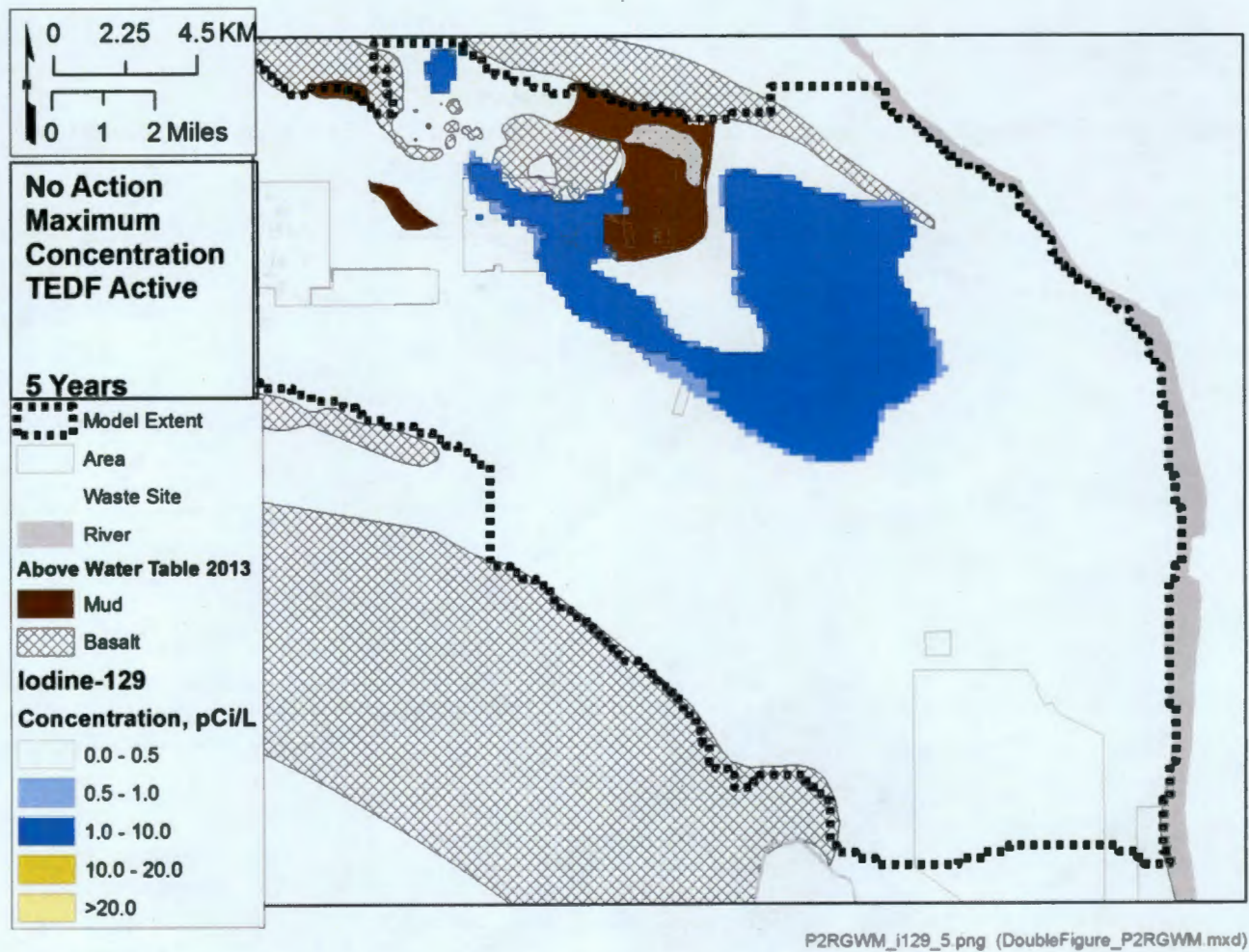


Figure B-268 - Plan view contours of the iodine-129 plume at simulation time 5 years based on the TEDF future use simulation using maximum concentration initial conditions

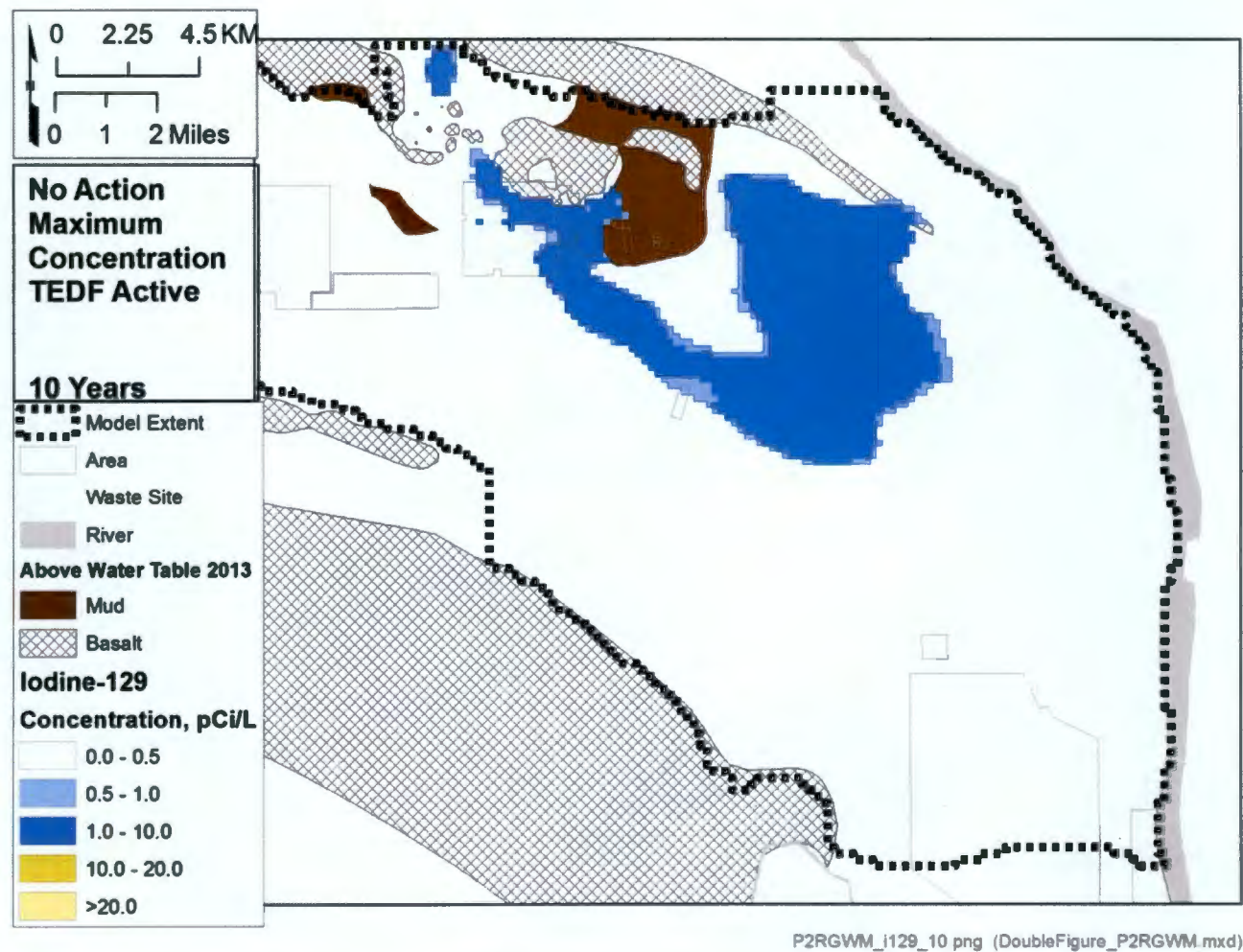
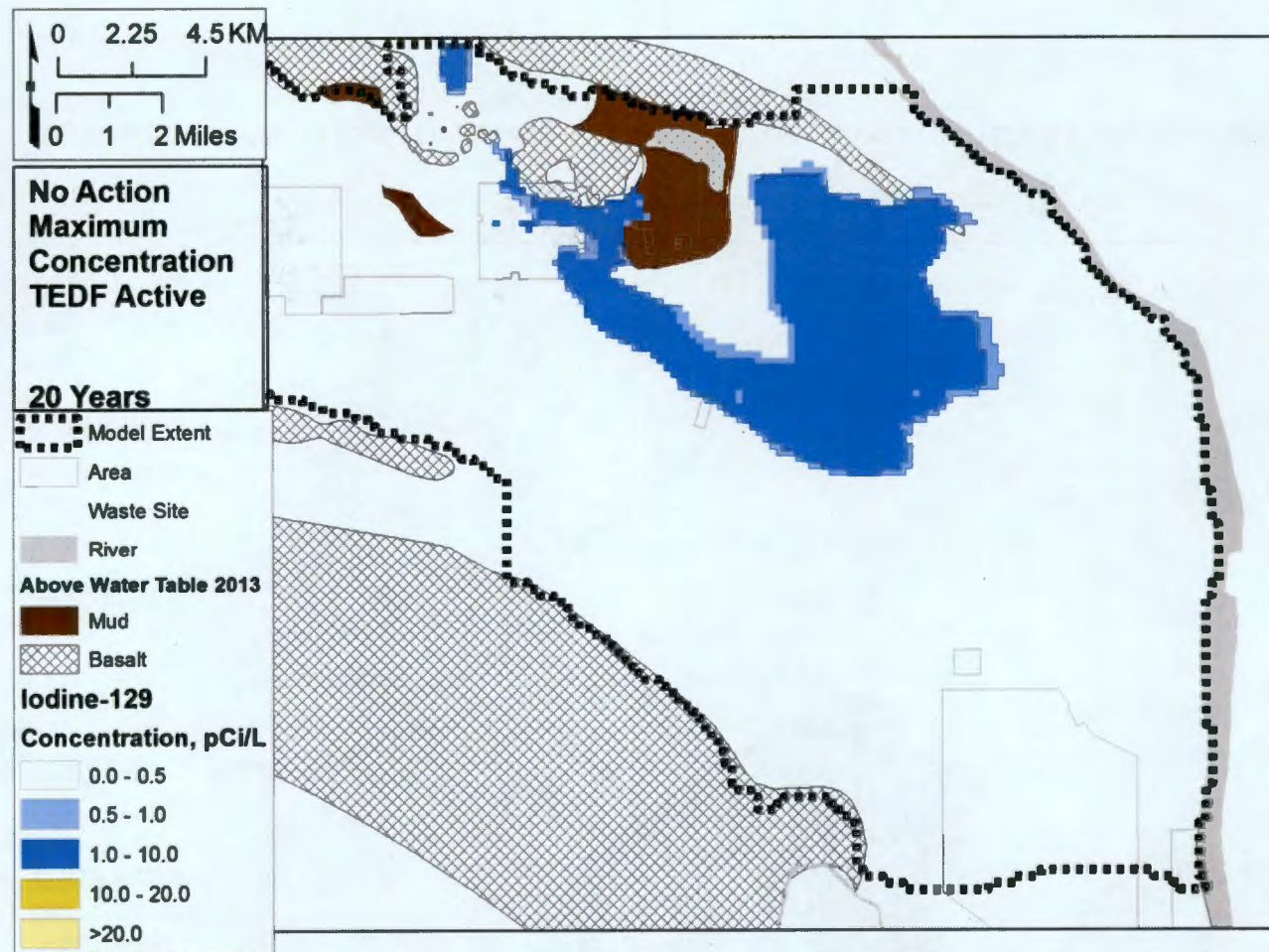
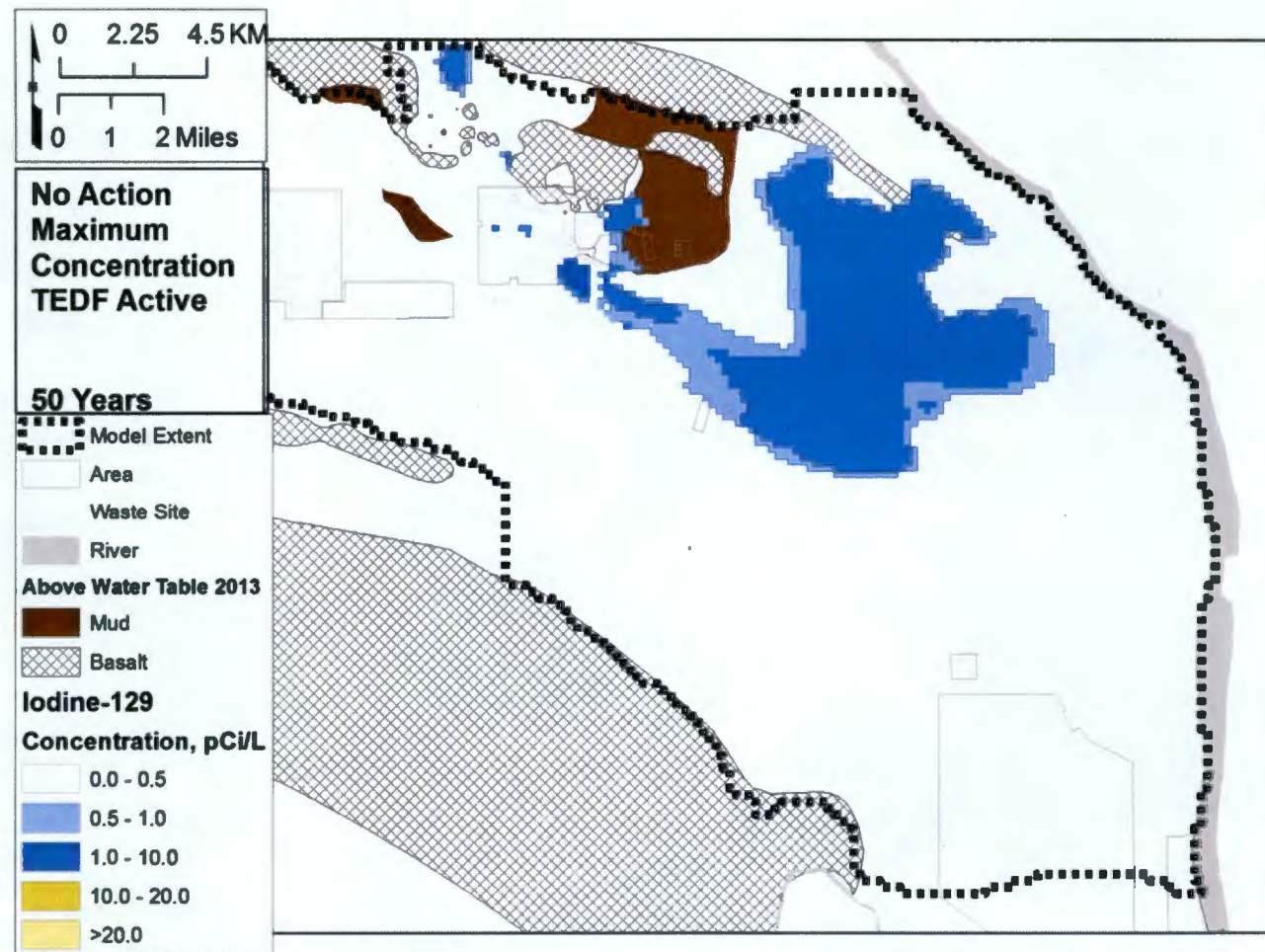


Figure B-269 - Plan view contours of the iodine-129 plume at simulation time 10 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_i129_20.png (DoubleFigure_P2RGWM.mxd)

Figure B-270 - Plan view contours of the iodine-129 plume at simulation time 20 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_i129_50.png (DoubleFigure_P2RGWM.mxd)

Figure B-271 - Plan view contours of the iodine-129 plume at simulation time 50 years based on the TEDF future use simulation using maximum concentration initial conditions

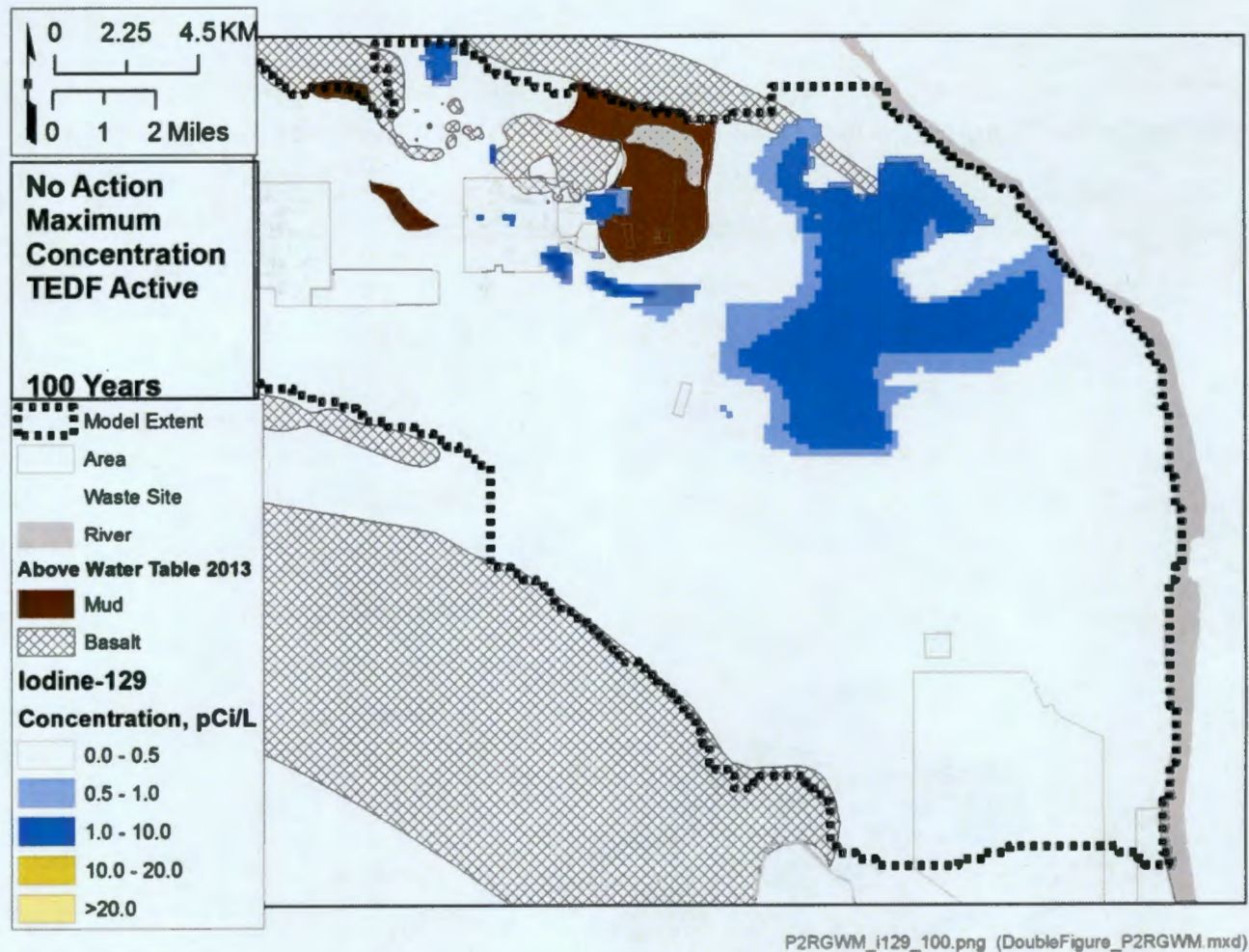
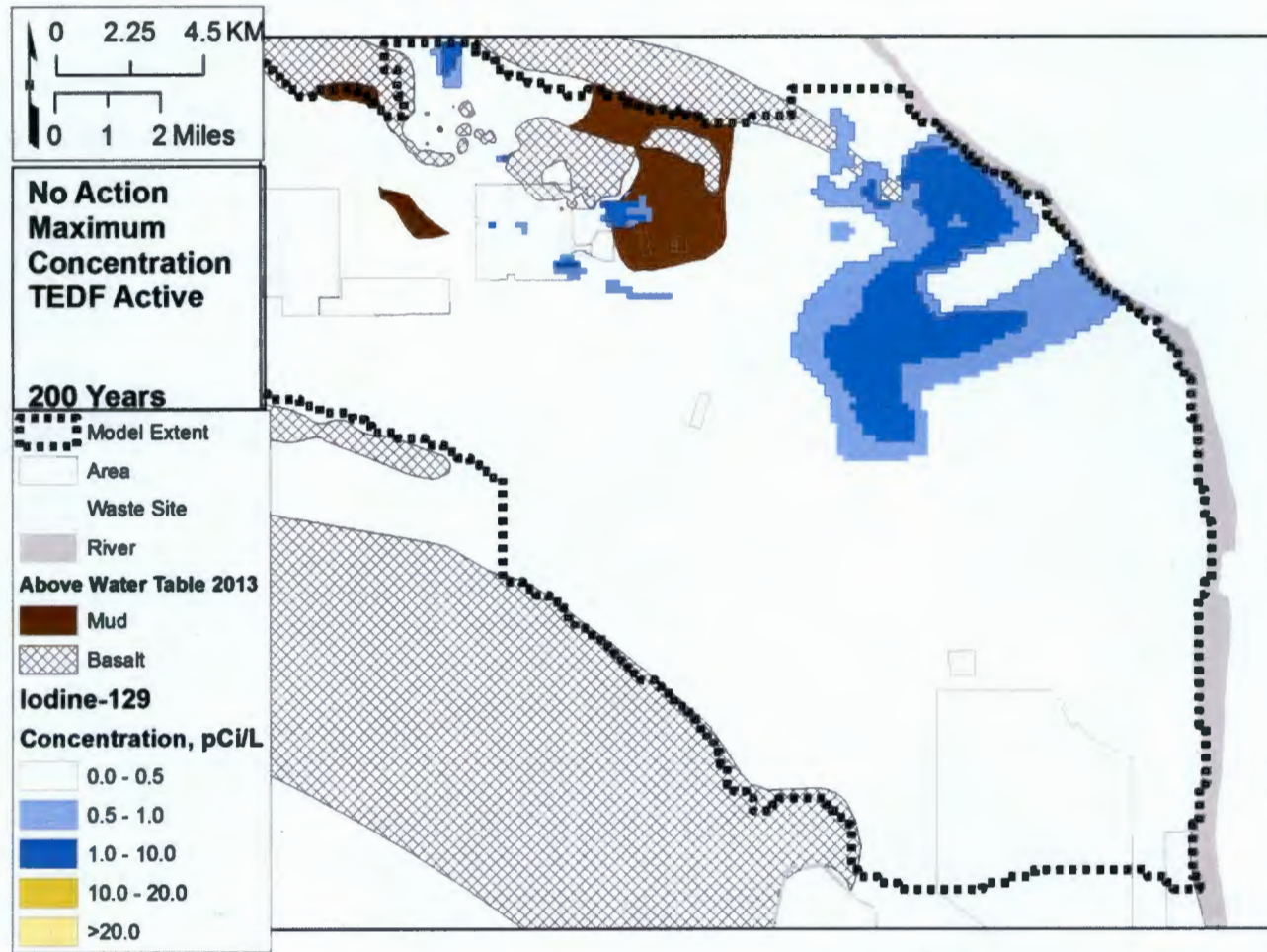


Figure B-272 - Plan view contours of the iodine-129 plume at simulation time 100 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_i129_200.png (DoubleFigure_P2RGWM.mxd)

Figure B-273 - Plan view contours of the iodine-129 plume at simulation time 200 years based on the TEDF future use simulation using maximum concentration initial conditions

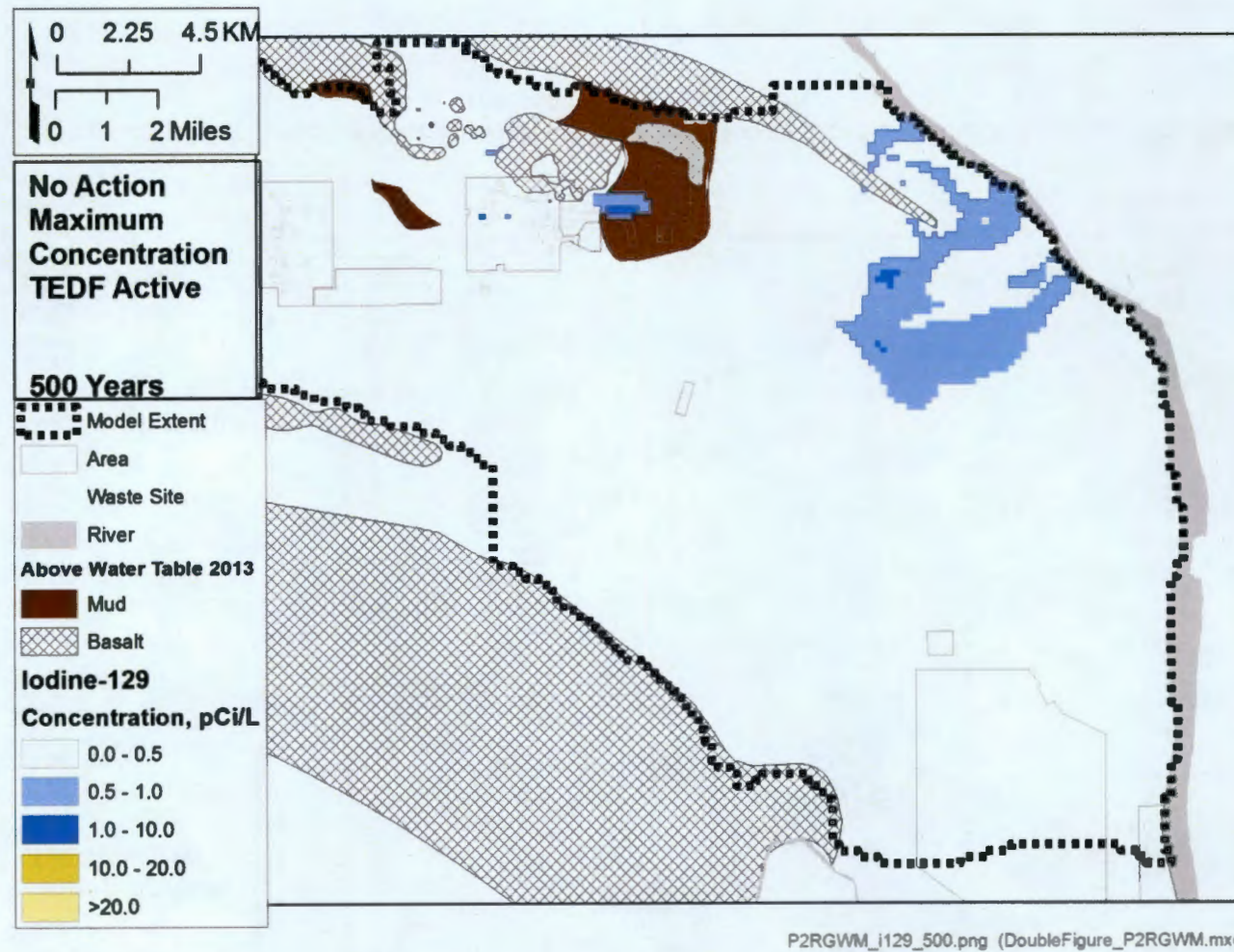


Figure B-274 - Plan view contours of the iodine-129 plume at simulation time 500 years based on the TEDF future use simulation using maximum concentration initial conditions

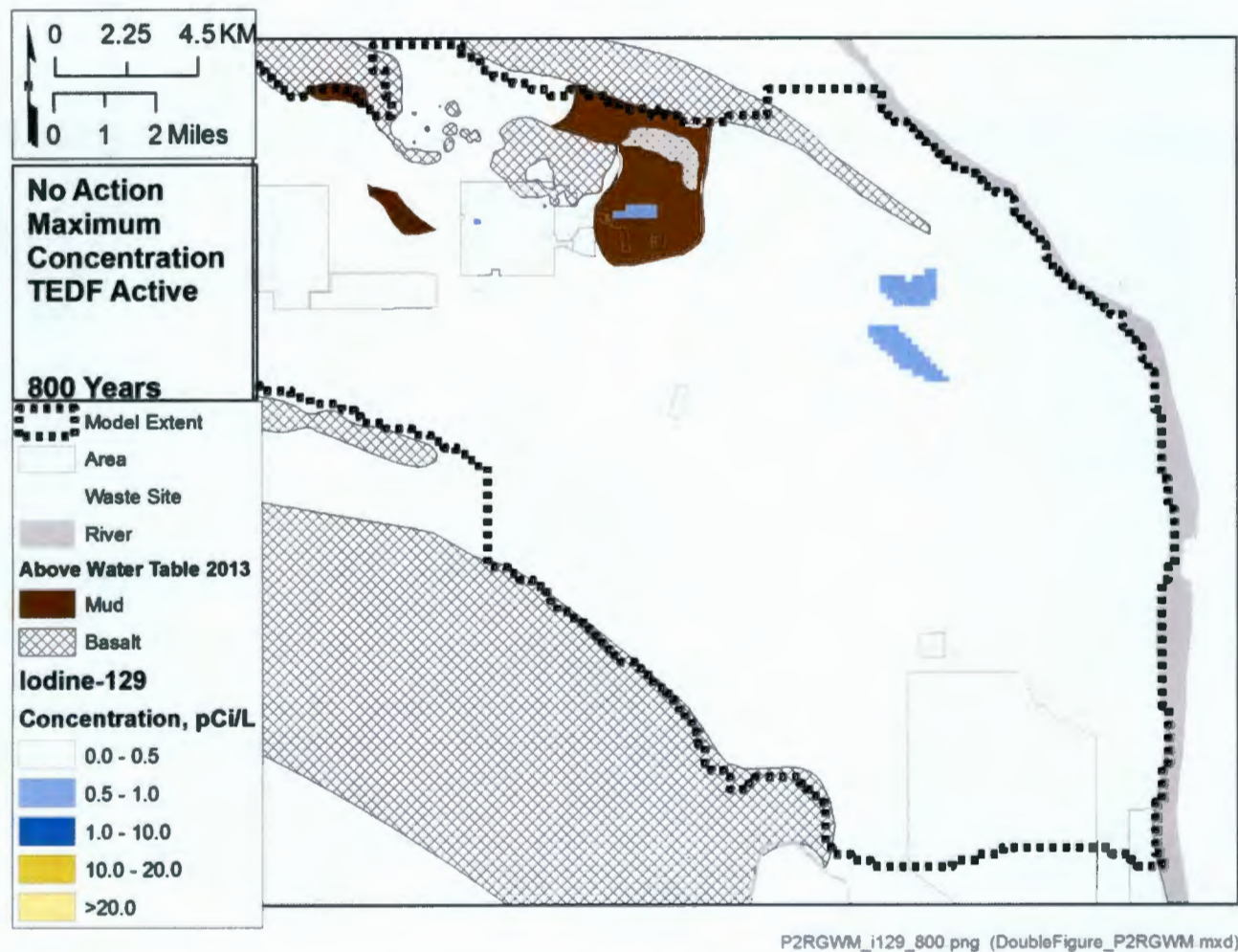
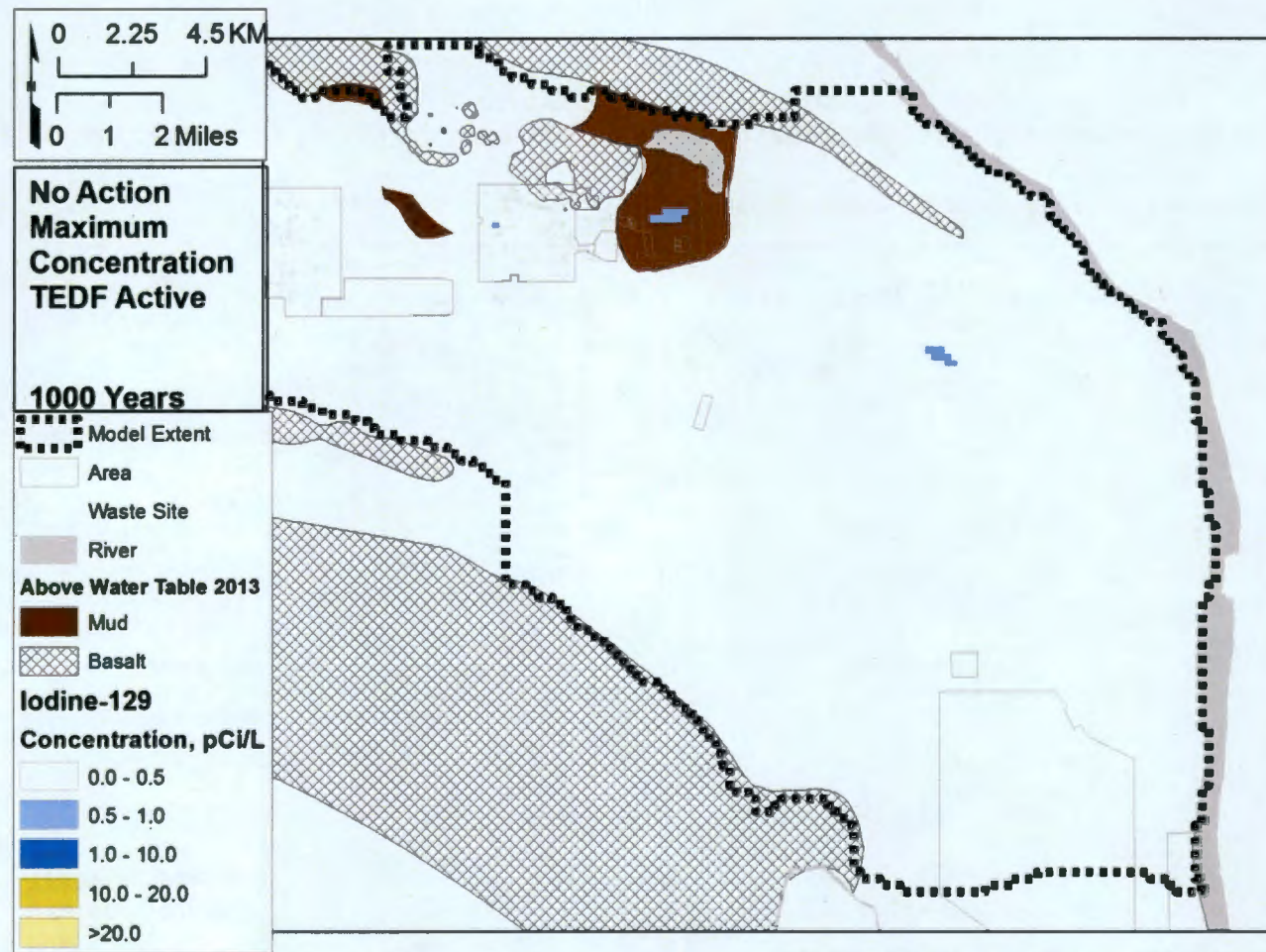


Figure B-275 - Plan view contours of the iodine-129 plume at simulation time 800 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_i129_1000.png (DoubleFigure_P2RGWM.mxd)

Figure B-276 - Plan view contours of the iodine-129 plume at simulation time 1000 years based on the TEDF future use simulation using maximum concentration initial conditions

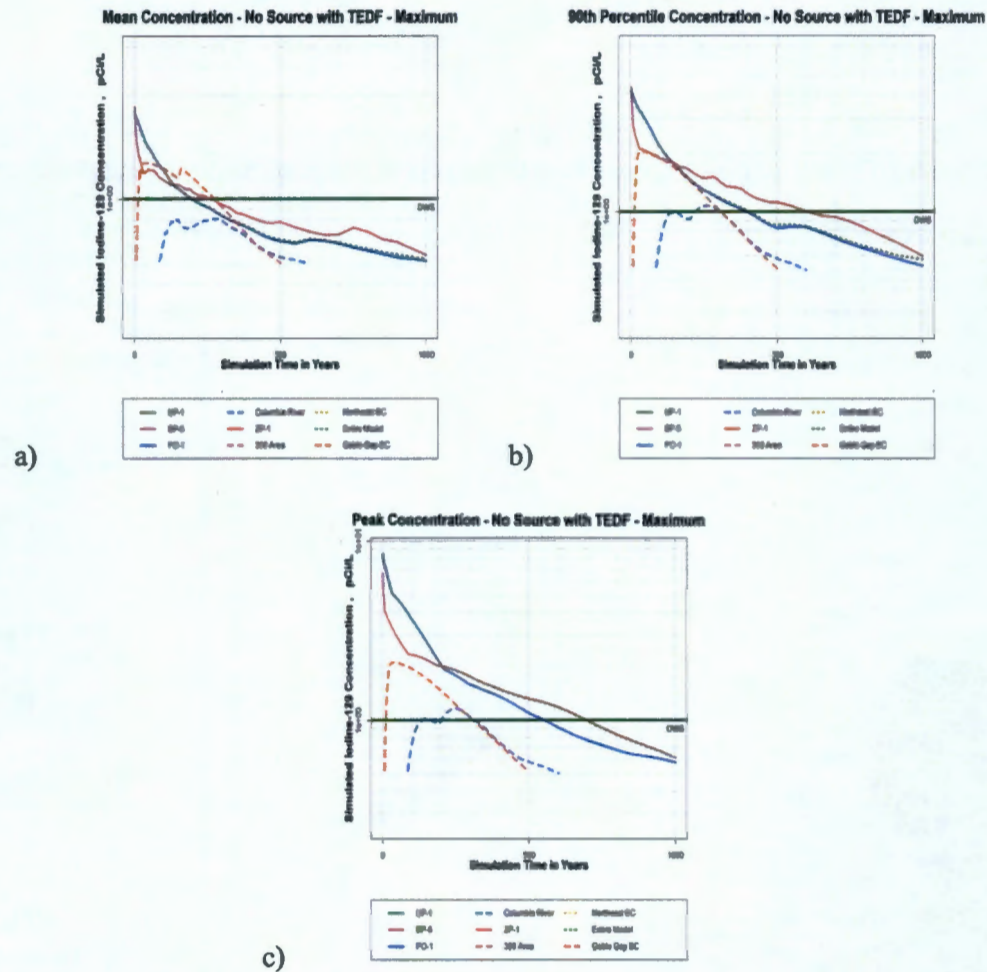
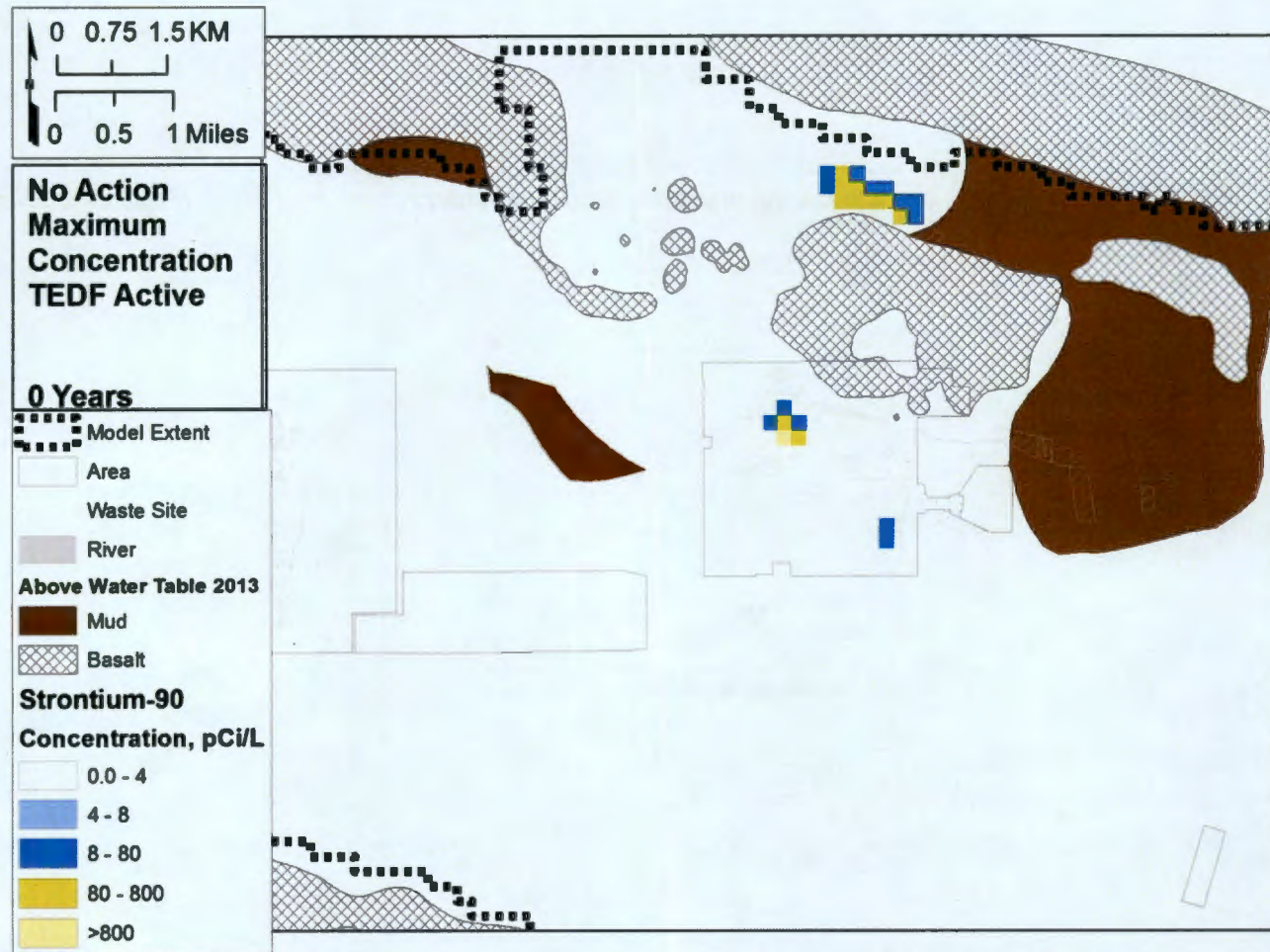


Figure B-277 - Statistical summary of simulated concentration within subregions of the model domain for the iodine-129 plume for the TEDF future use simulation using maximum concentration initial conditions.



P2RGWM_sr90_0.png (DoubleFigure_P2RGWM.mxd)

Figure B-278 - Plan view contours of the strontium-90 plume at simulation time 0 years based on the TEDF future use simulation using maximum concentration initial conditions

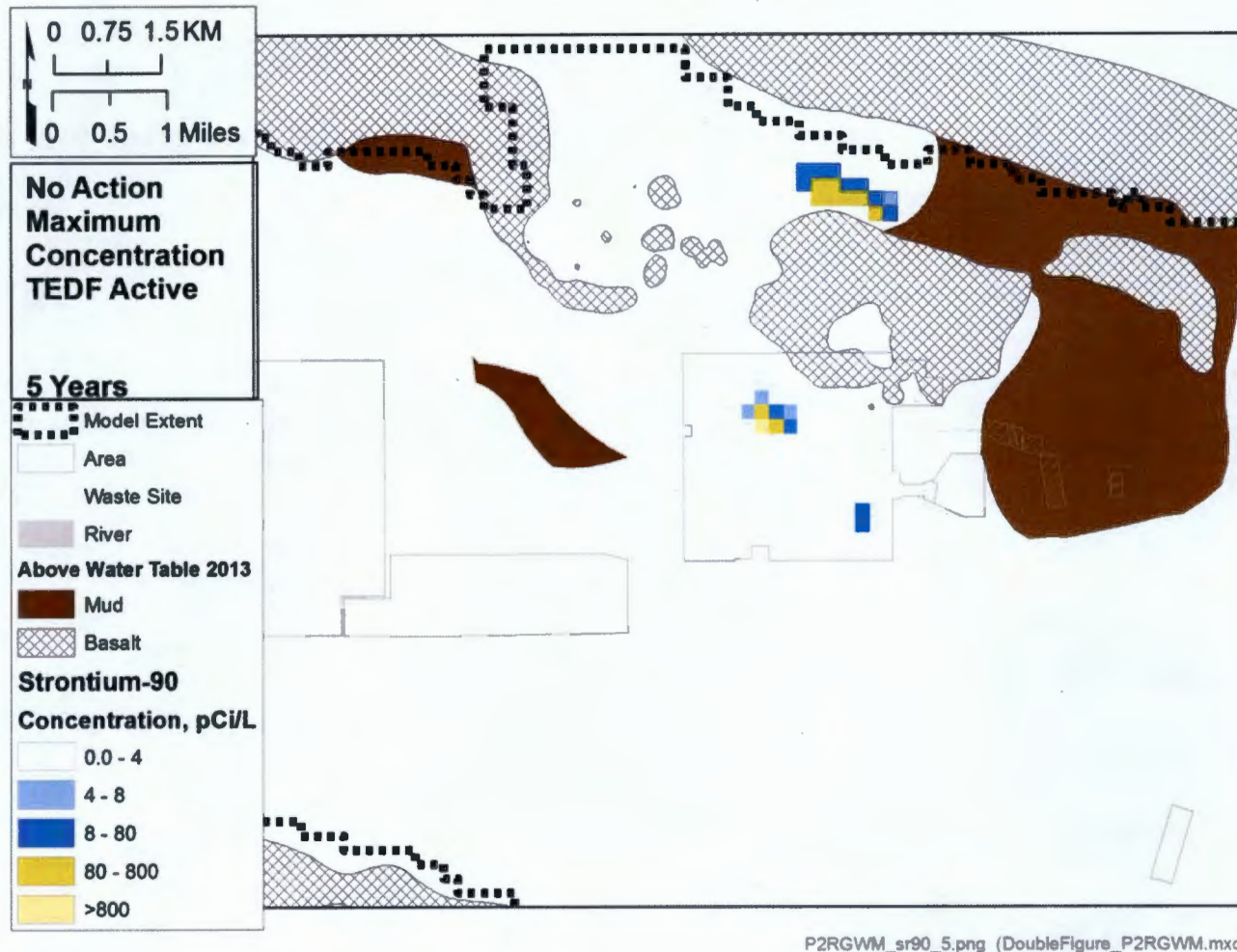


Figure B-279 - Plan view contours of the strontium-90 plume at simulation time 5 years based on the TEDF future use simulation using maximum concentration initial conditions

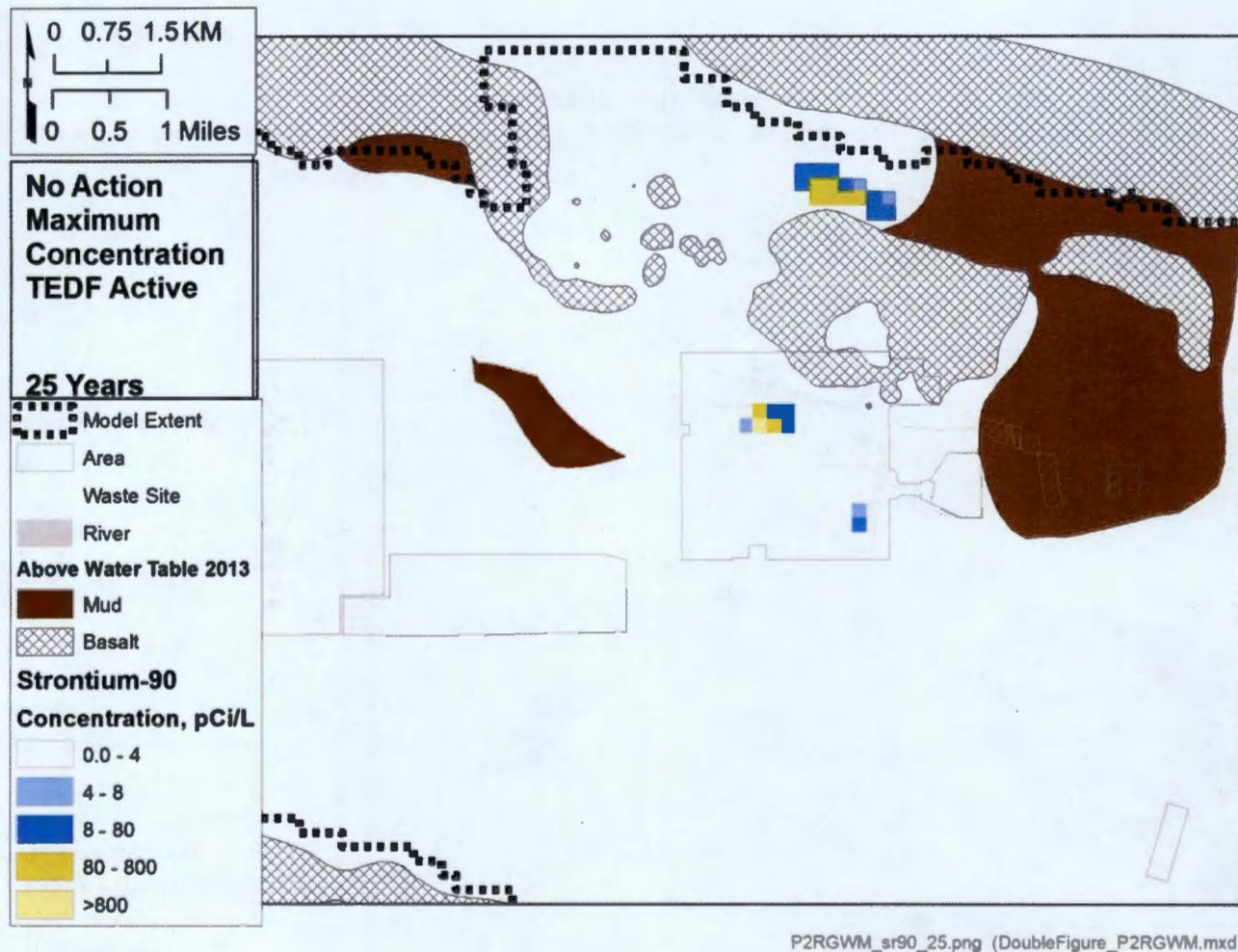
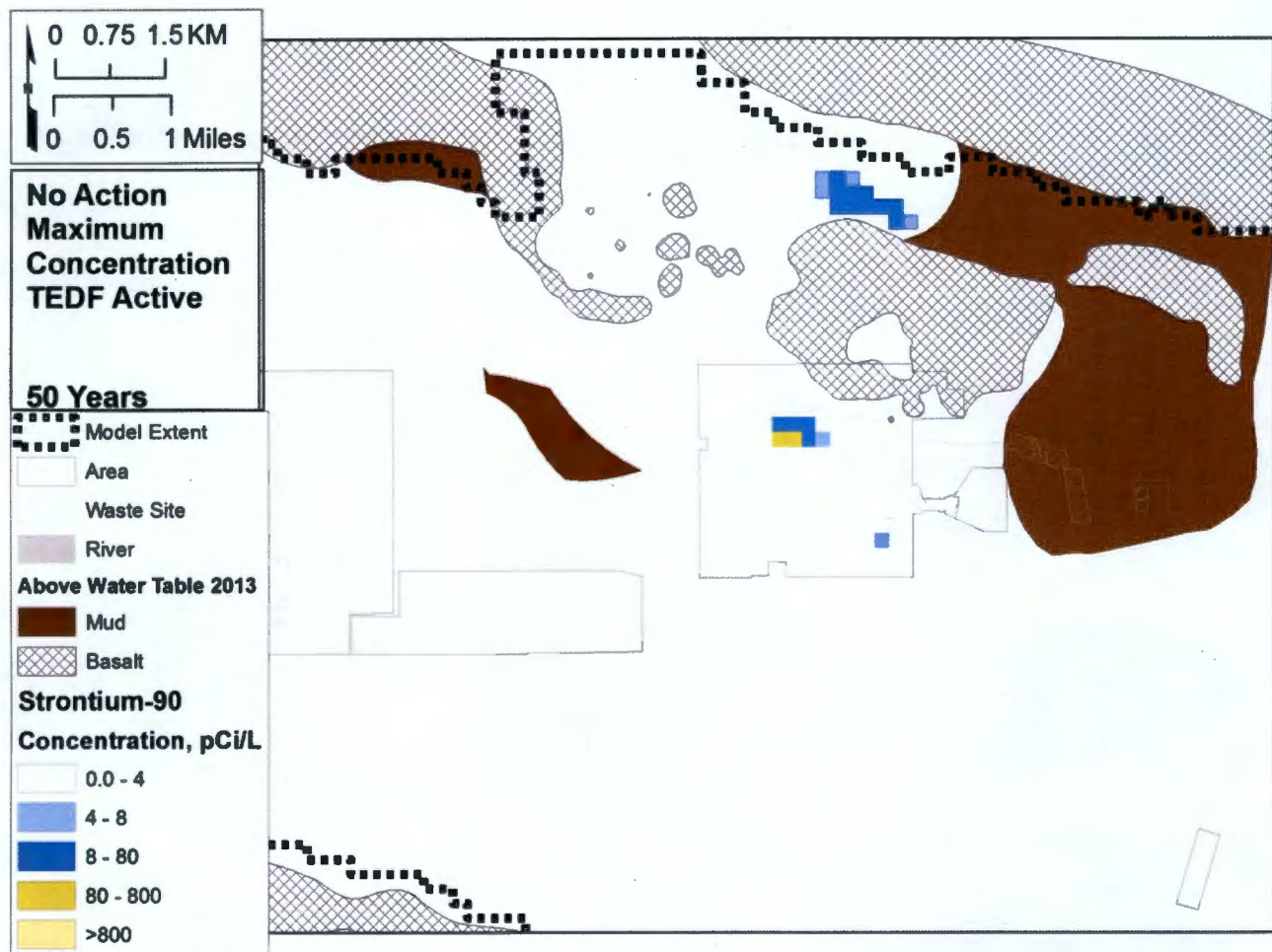
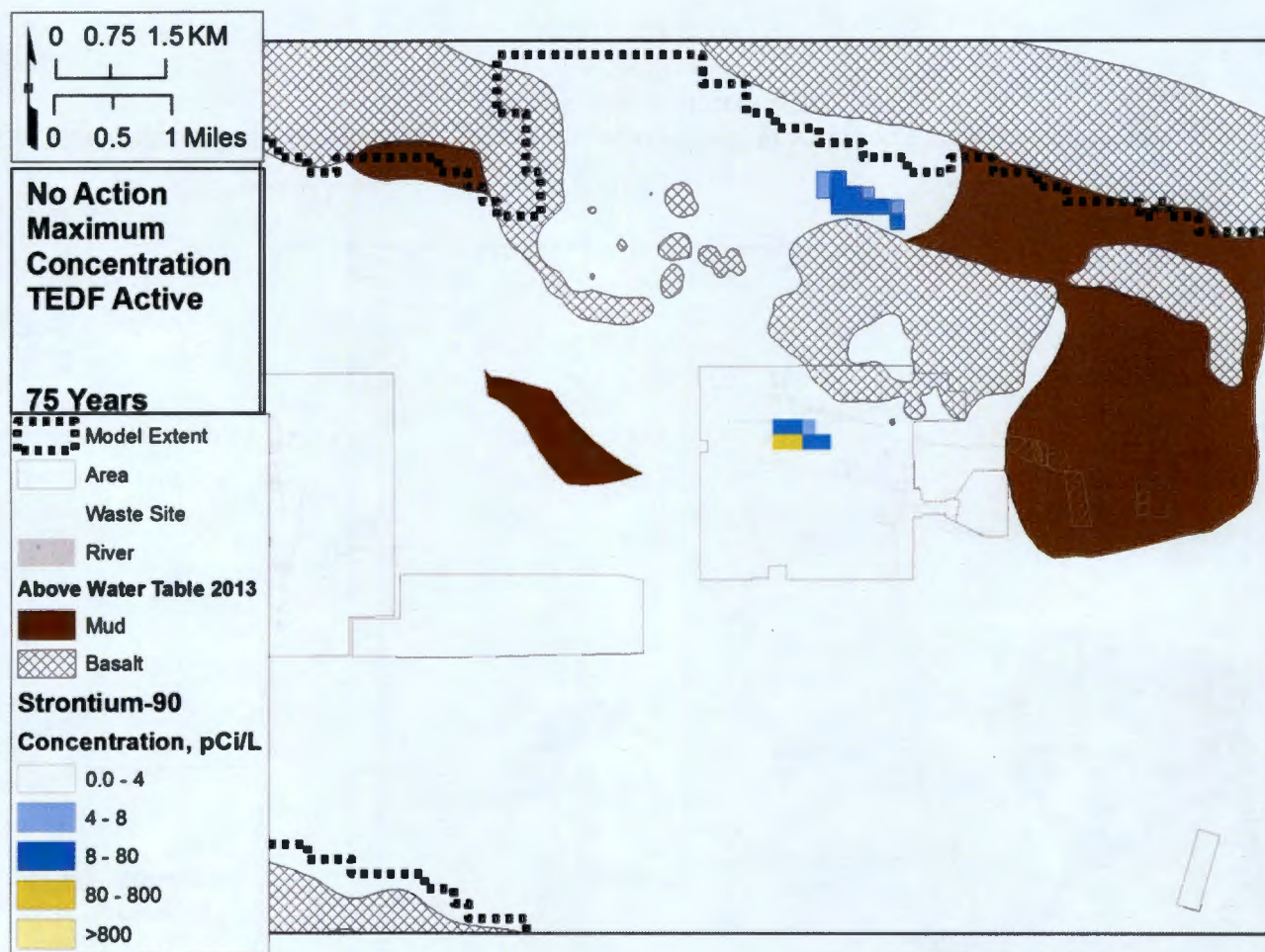


Figure B-280 - Plan view contours of the strontium-90 plume at simulation time 25 years based on the TEDF future use simulation using maximum concentration initial conditions



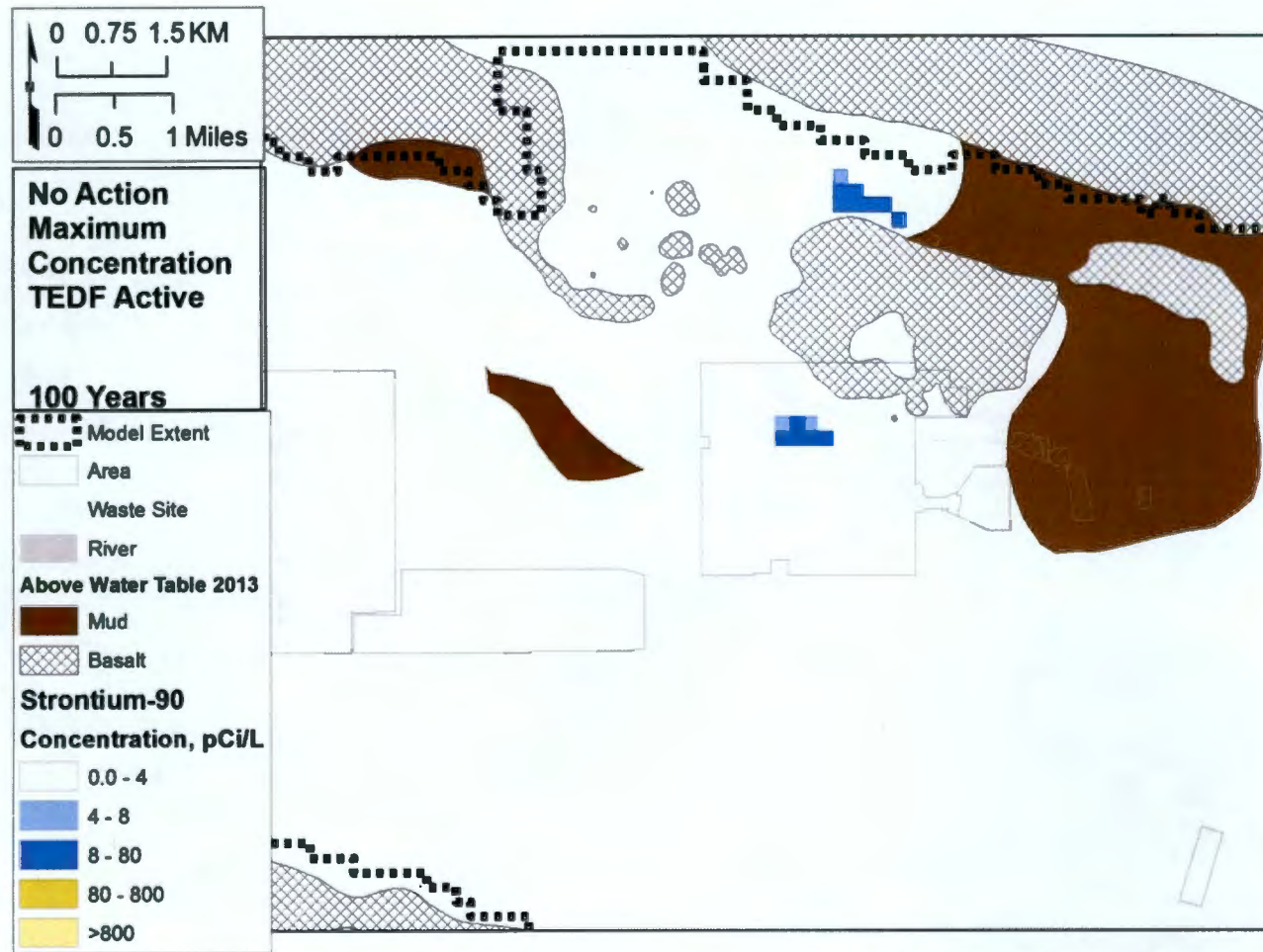
P2RGWM_sr90_50.png (DoubleFigure_P2RGWM.mxd)

Figure B-281 - Plan view contours of the strontium-90 plume at simulation time 50 years based on the TEDF future use simulation using maximum concentration initial conditions



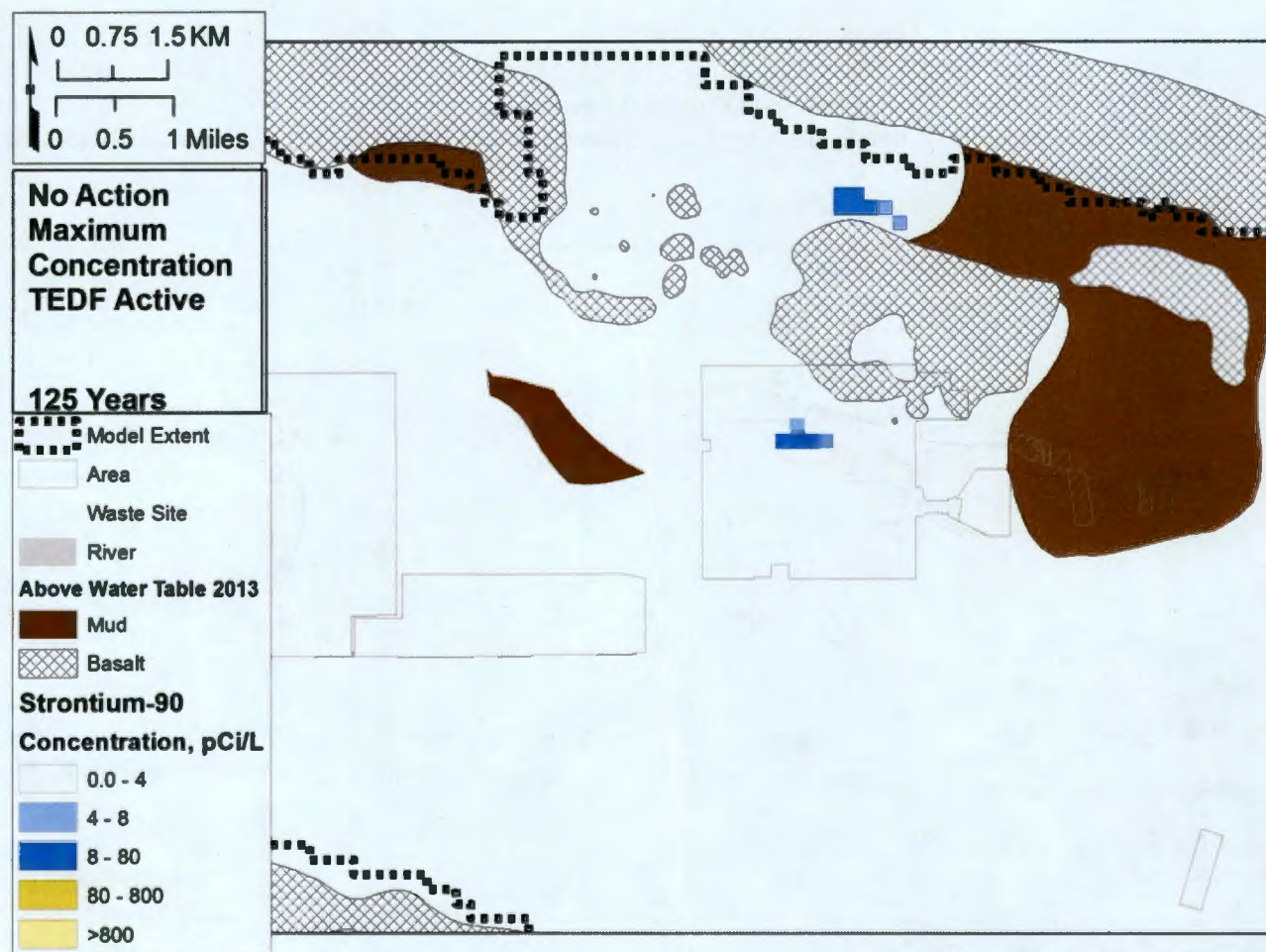
P2RGWM_sr90_75.png (DoubleFigure_P2RGWM.mxd)

Figure B-282 - Plan view contours of the strontium-90 plume at simulation time 75 years based on the TEDF future use simulation using maximum concentration initial conditions



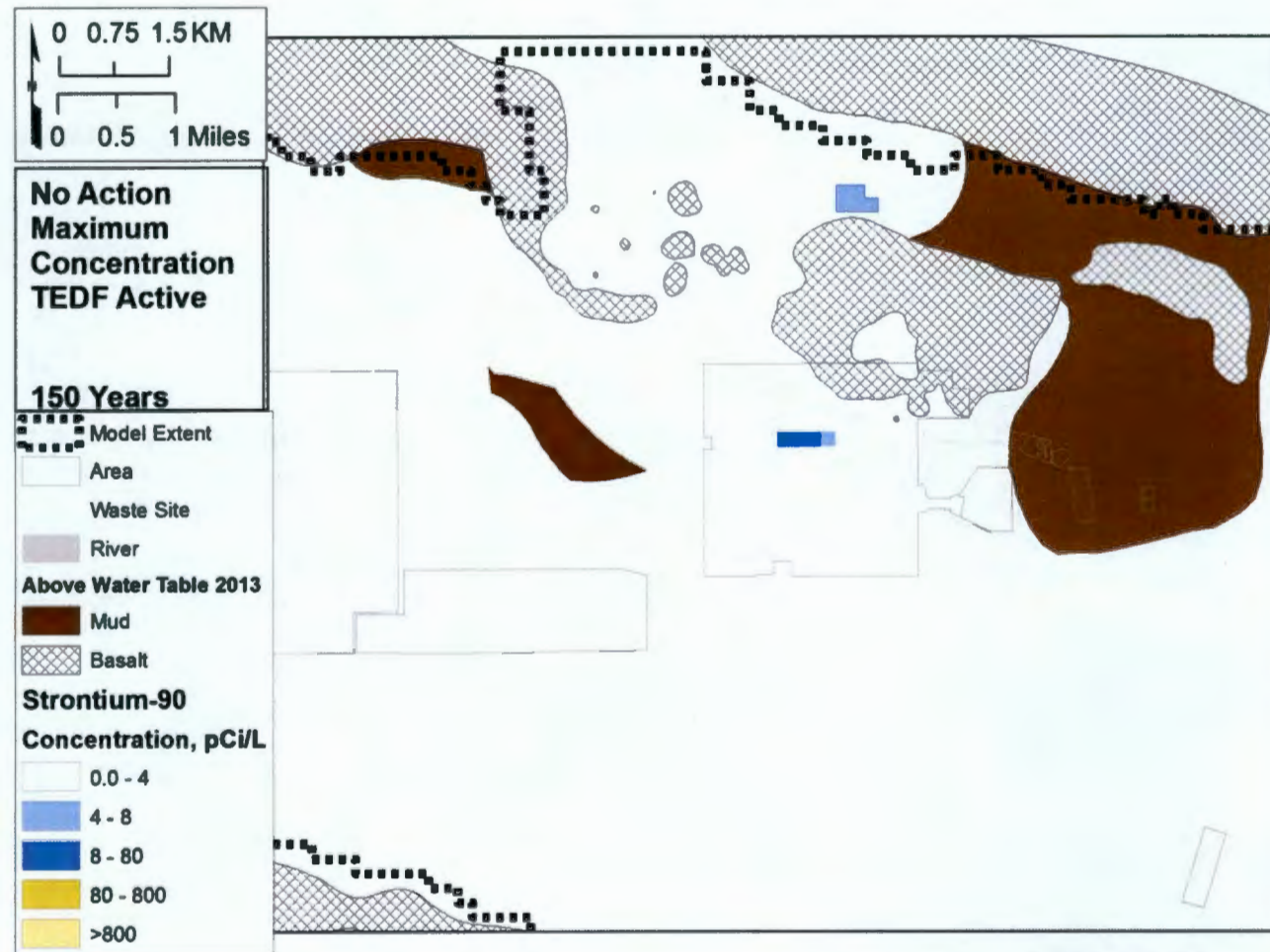
P2RGWM_sr90_100.png (DoubleFigure_P2RGWM.mxd)

Figure B-283 - Plan view contours of the strontium-90 plume at simulation time 100 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_sr90_125.png (DoubleFigure_P2RGWM.mxd)

Figure B-284 - Plan view contours of the strontium-90 plume at simulation time 125 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_sr90_150.png (DoubleFigure_P2RGWM.mxd)

Figure B-285 - Plan view contours of the strontium-90 plume at simulation time 150 years based on the TEDF future use simulation using maximum concentration initial conditions

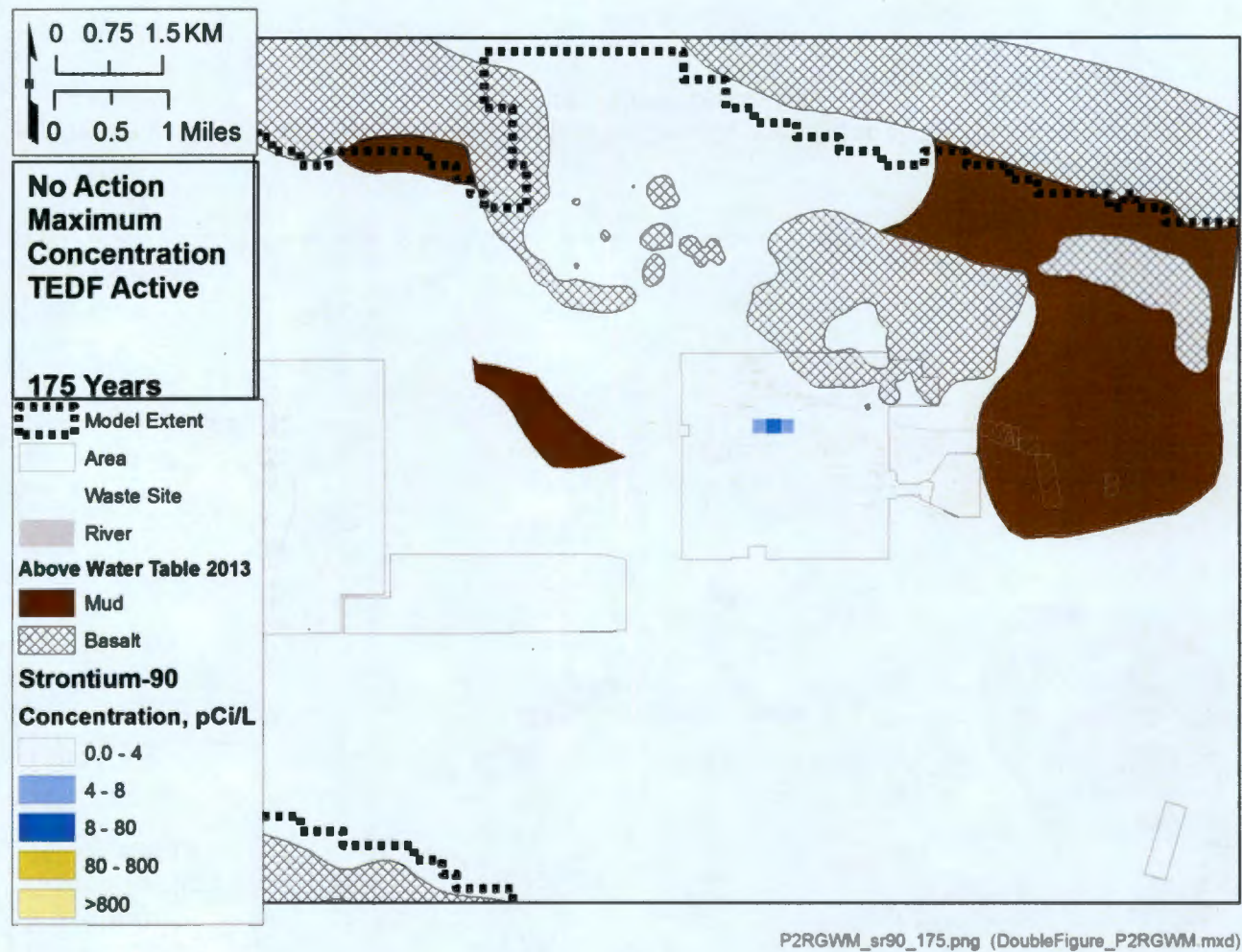


Figure B-286 - Plan view contours of the strontium-90 plume at simulation time 175 years based on the TEDF future use simulation using maximum concentration initial conditions

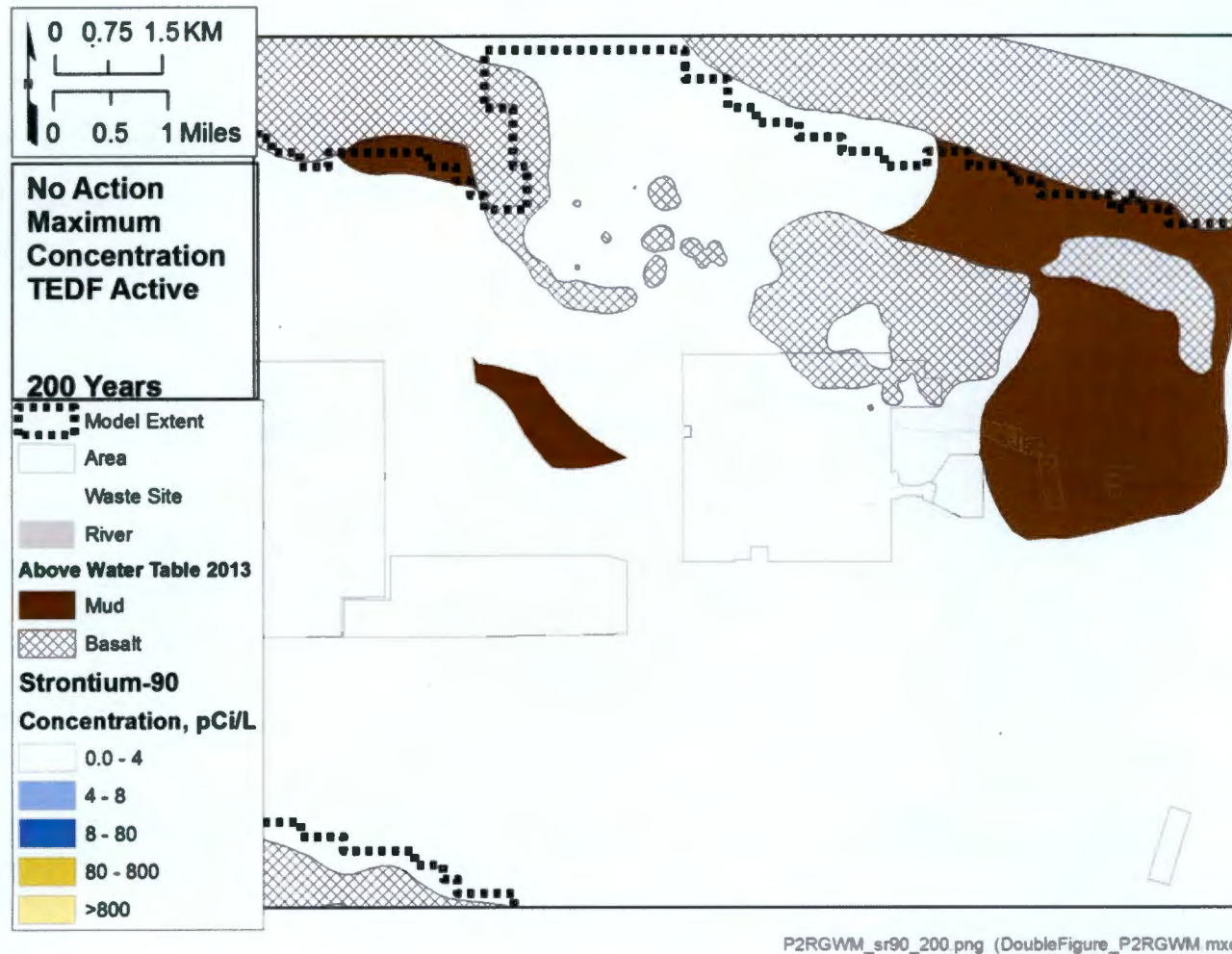


Figure B-287 - Plan view contours of the strontium-90 plume at simulation time 200 years based on the TEDF future use simulation using maximum concentration initial conditions

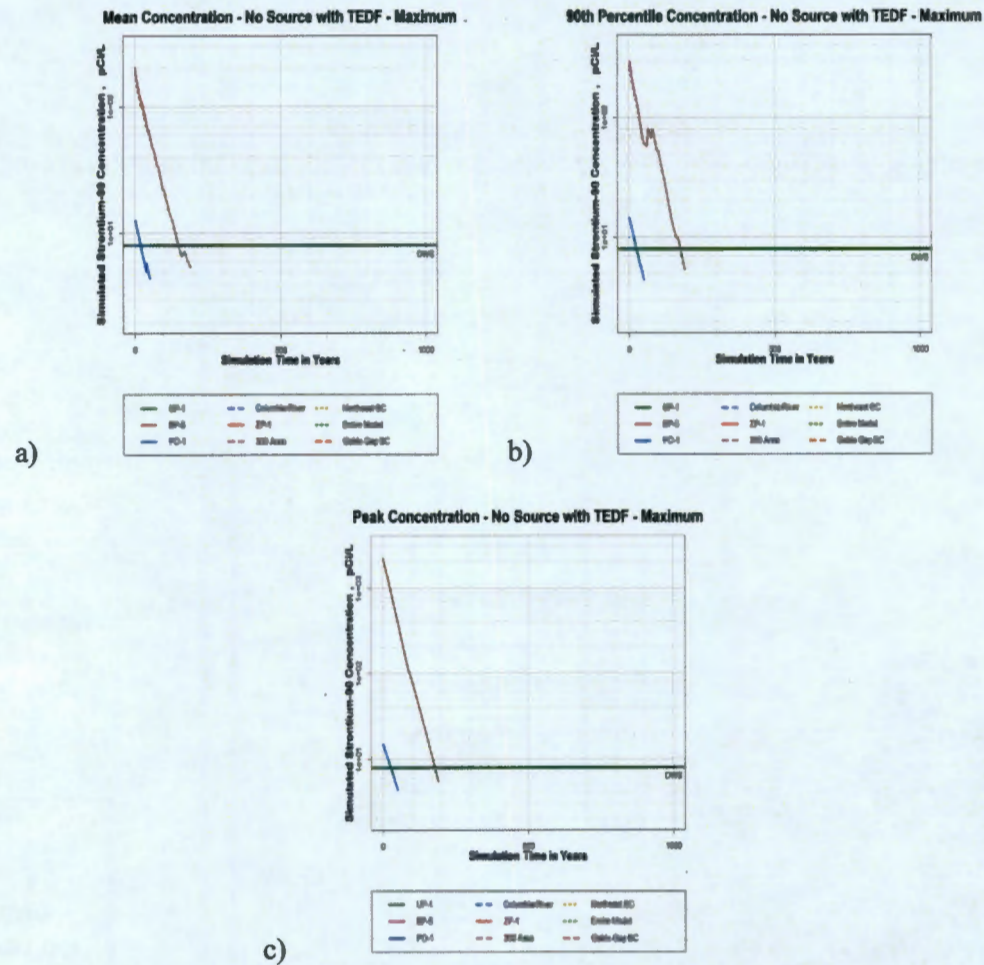
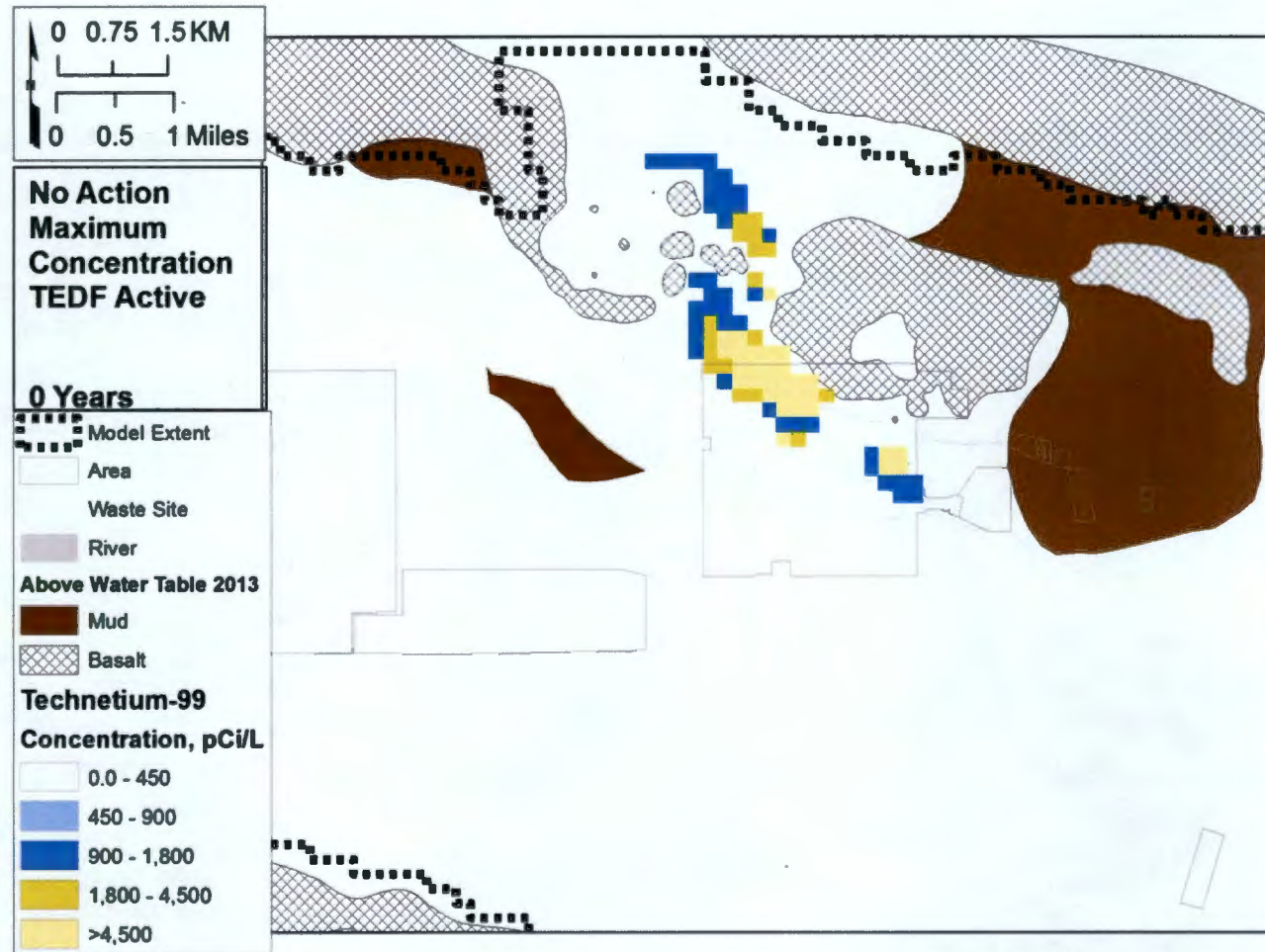
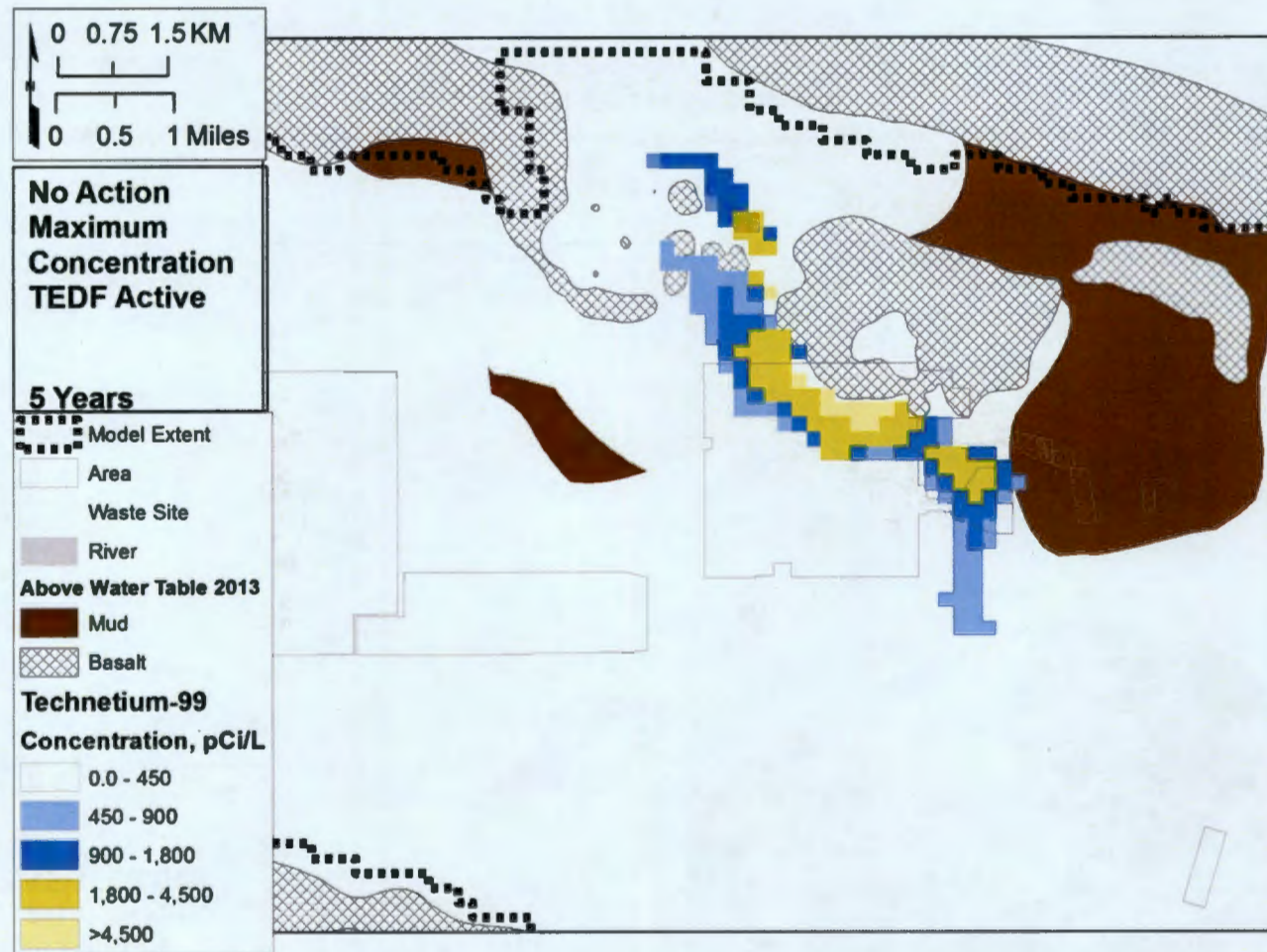


Figure B-288 - Statistical summary of simulated concentration within subregions of the model domain for the strontium-90 plume for the TEDF future use simulation using maximum concentration initial conditions.



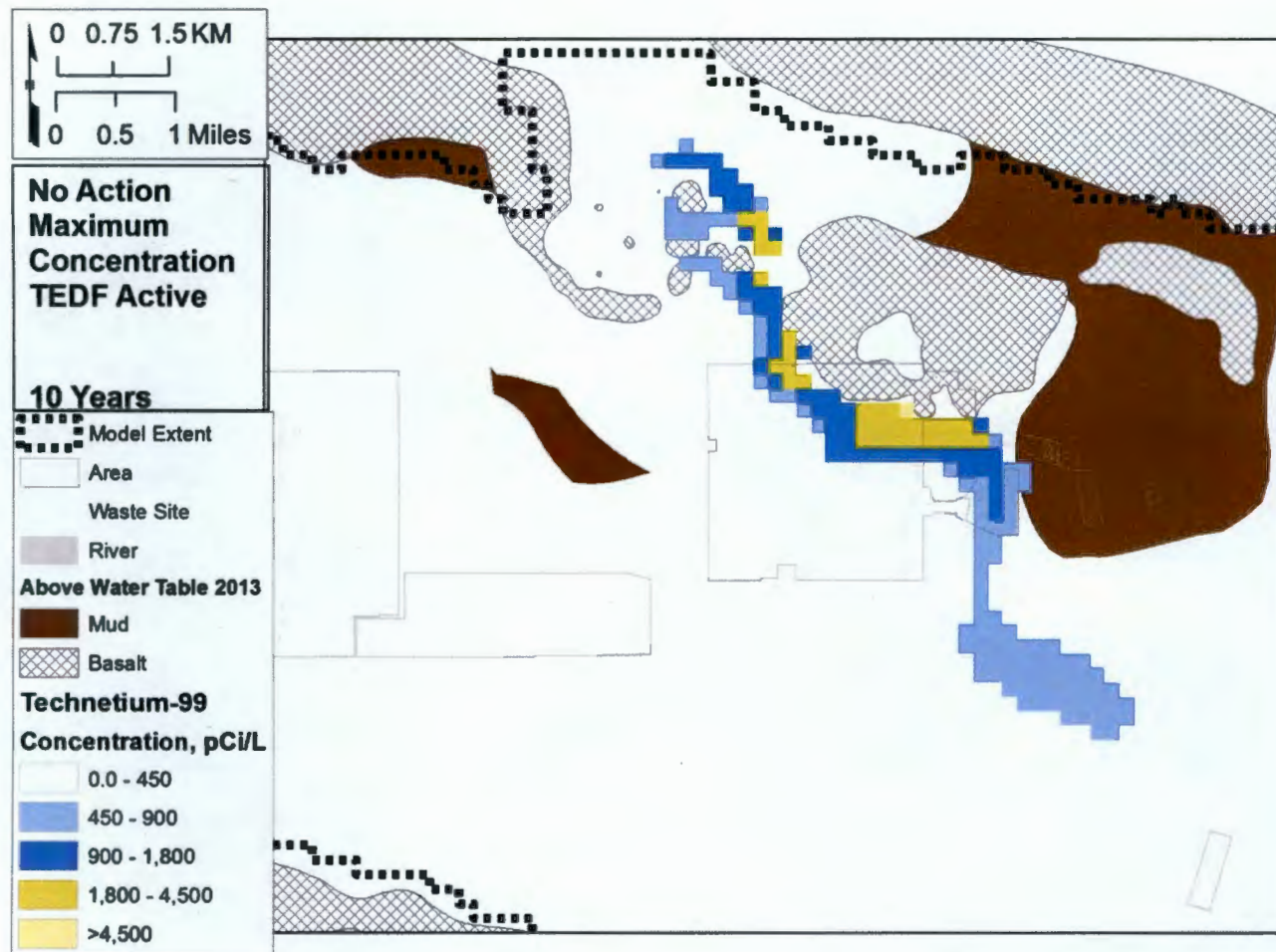
P2RGWM_tc99_0.png (DoubleFigure_P2RGWM.mxd)

Figure B-289 - Plan view contours of the technetium-99 plume at simulation time 0 years based on the TEDF future use simulation using maximum concentration initial conditions



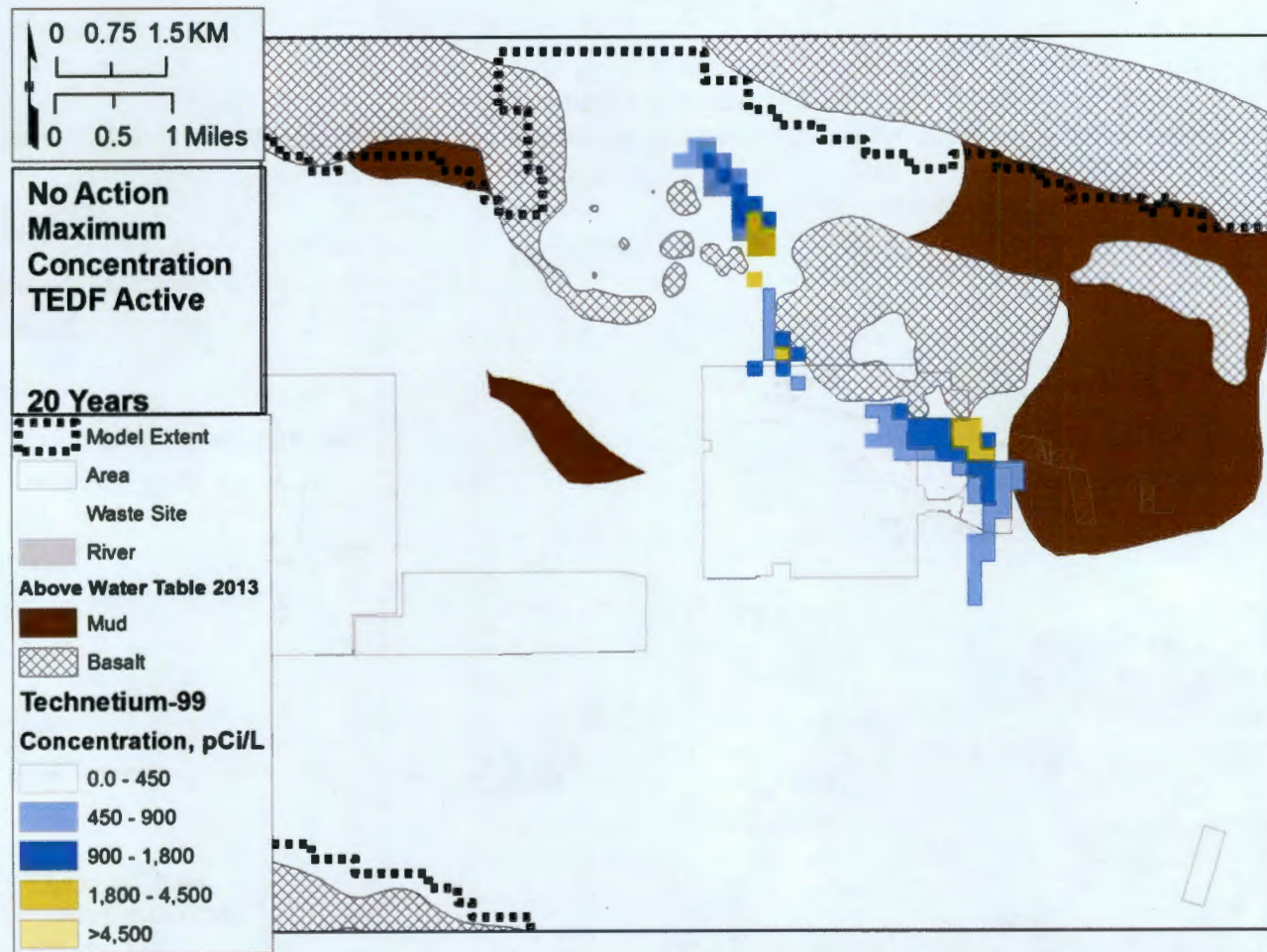
P2RGWM_tc99_5.png (DoubleFigure_P2RGWM.mxd)

Figure B-290 - Plan view contours of the technetium-99 plume at simulation time 5 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_tc99_10.png (DoubleFigure_P2RGWM.mxd)

Figure B-291 - Plan view contours of the technetium-99 plume at simulation time 10 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_tc99_20.png (DoubleFigure_P2RGWM.mxd)

Figure B-292 - Plan view contours of the technetium-99 plume at simulation time 20 years based on the TEDF future use simulation using maximum concentration initial conditions

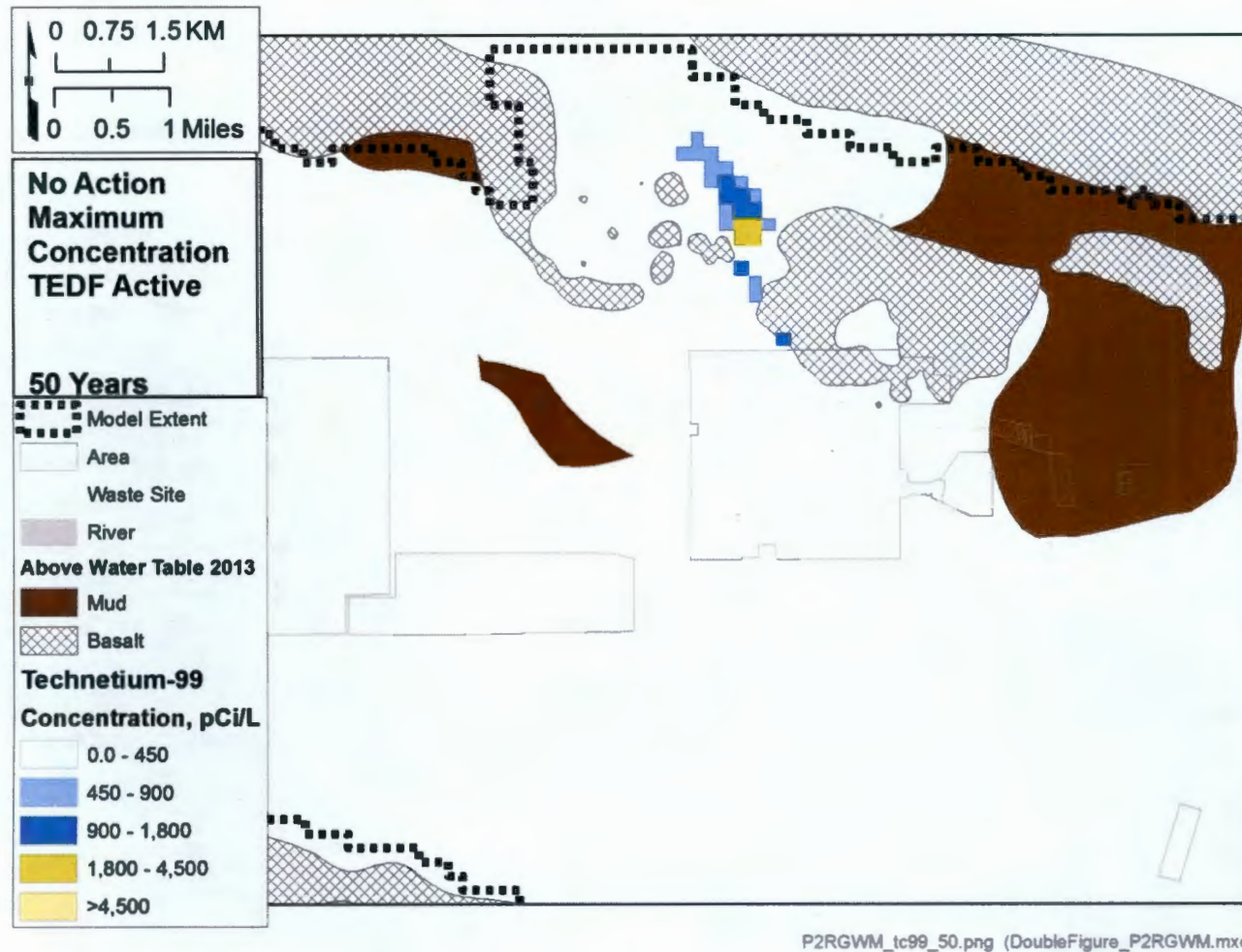
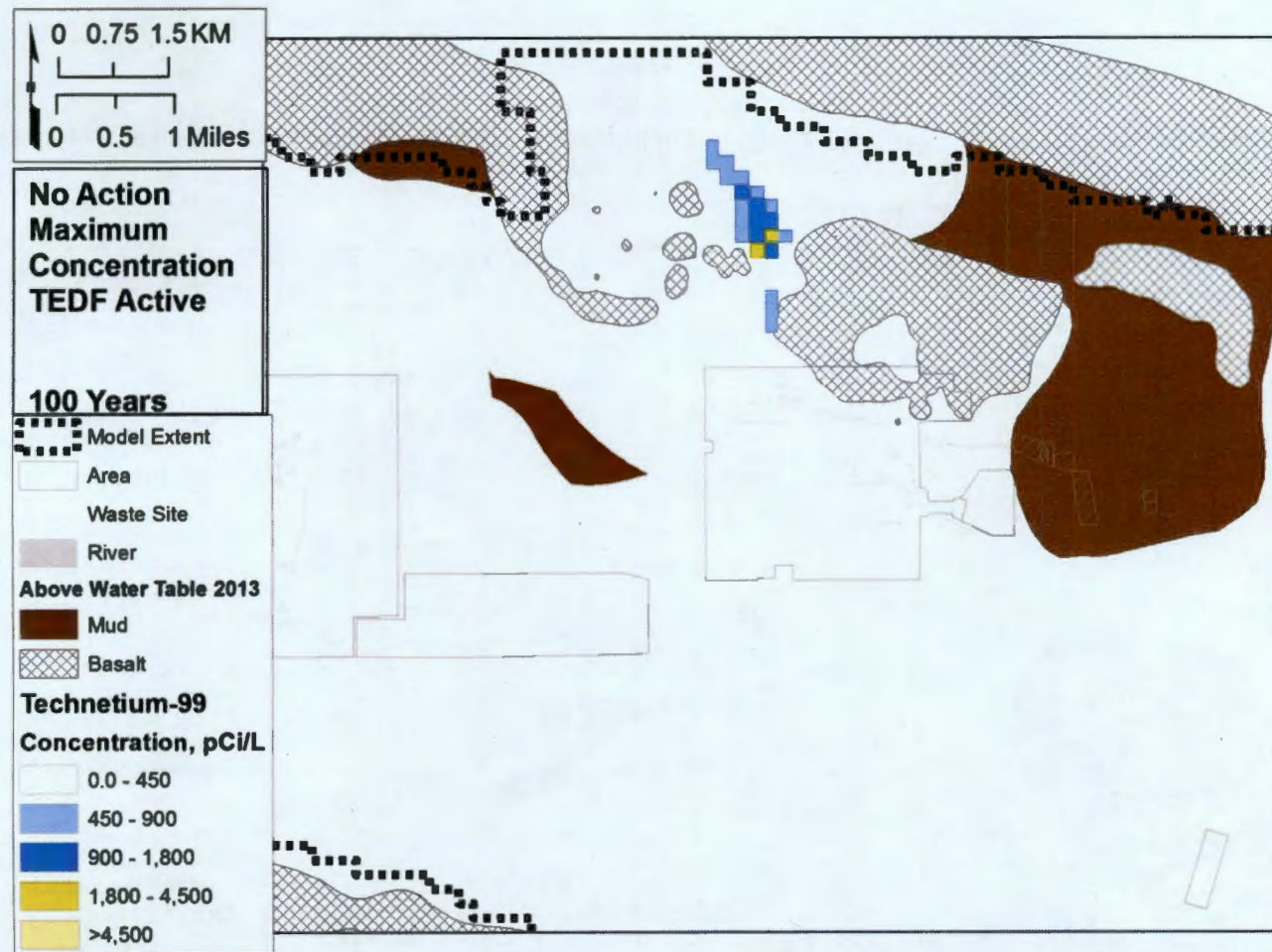


Figure B-293 - Plan view contours of the technetium-99 plume at simulation time 50 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_tc99_100.png (DoubleFigure_P2RGWM.mxd)

Figure B-294 - Plan view contours of the technetium-99 plume at simulation time 100 years based on the TEDF future use simulation using maximum concentration initial conditions

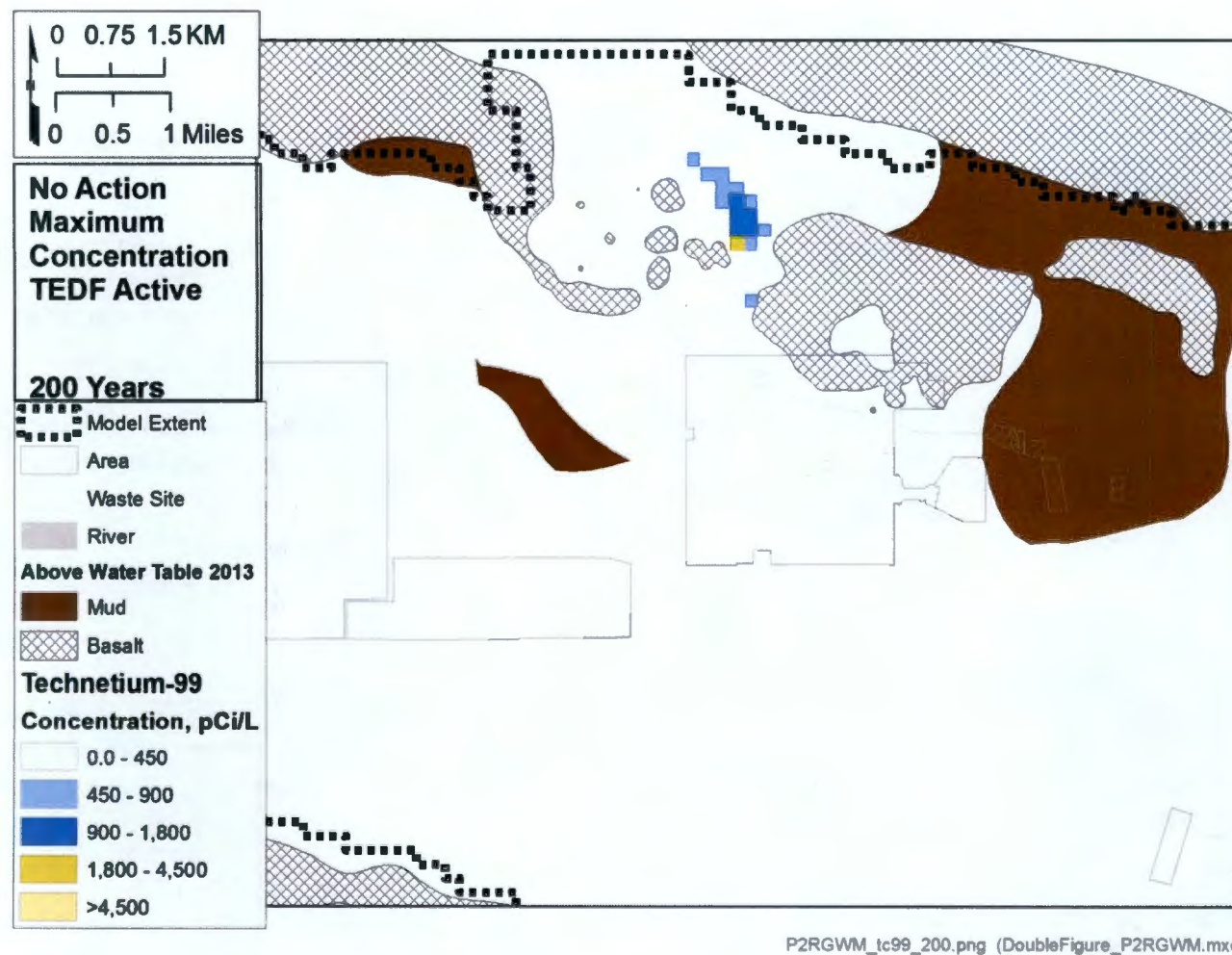
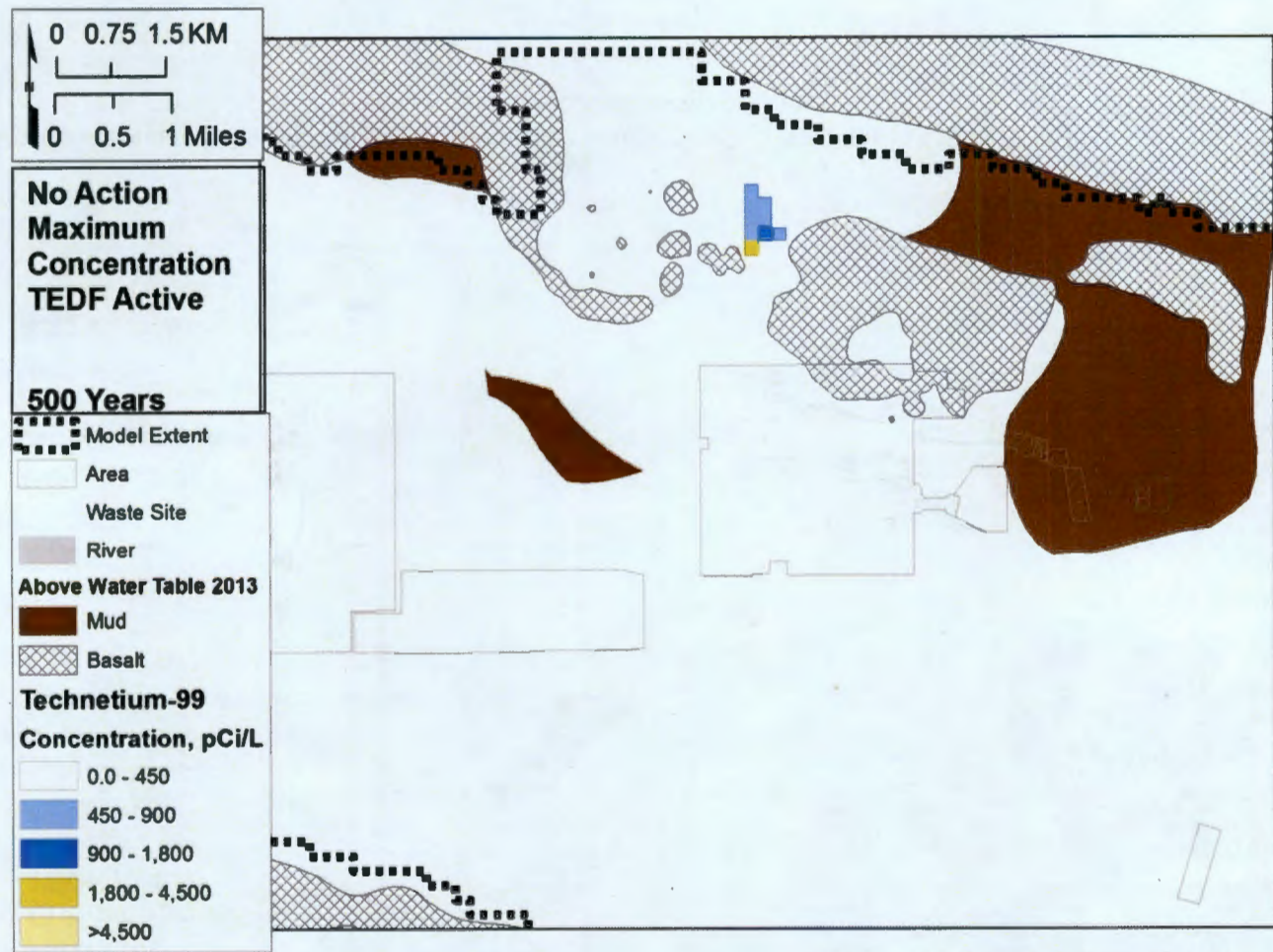


Figure B-295 - Plan view contours of the technetium-99 plume at simulation time 200 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_tc99_500.png (DoubleFigure_P2RGWM.mxd)

Figure B-296 - Plan view contours of the technetium-99 plume at simulation time 500 years based on the TEDF future use simulation using maximum concentration initial conditions

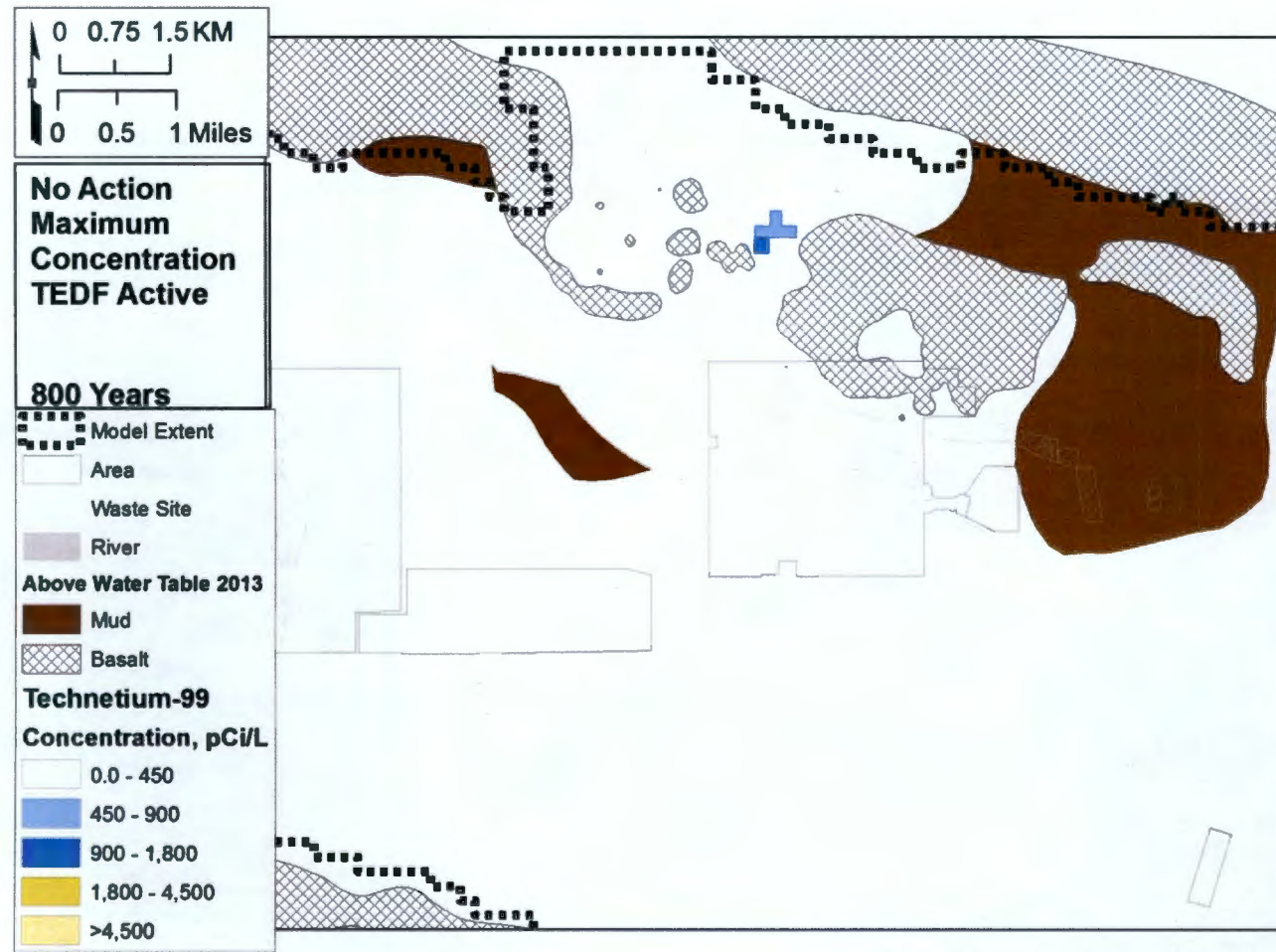


Figure B-297 - Plan view contours of the technetium-99 plume at simulation time 800 years based on the TEDF future use simulation using maximum concentration initial conditions

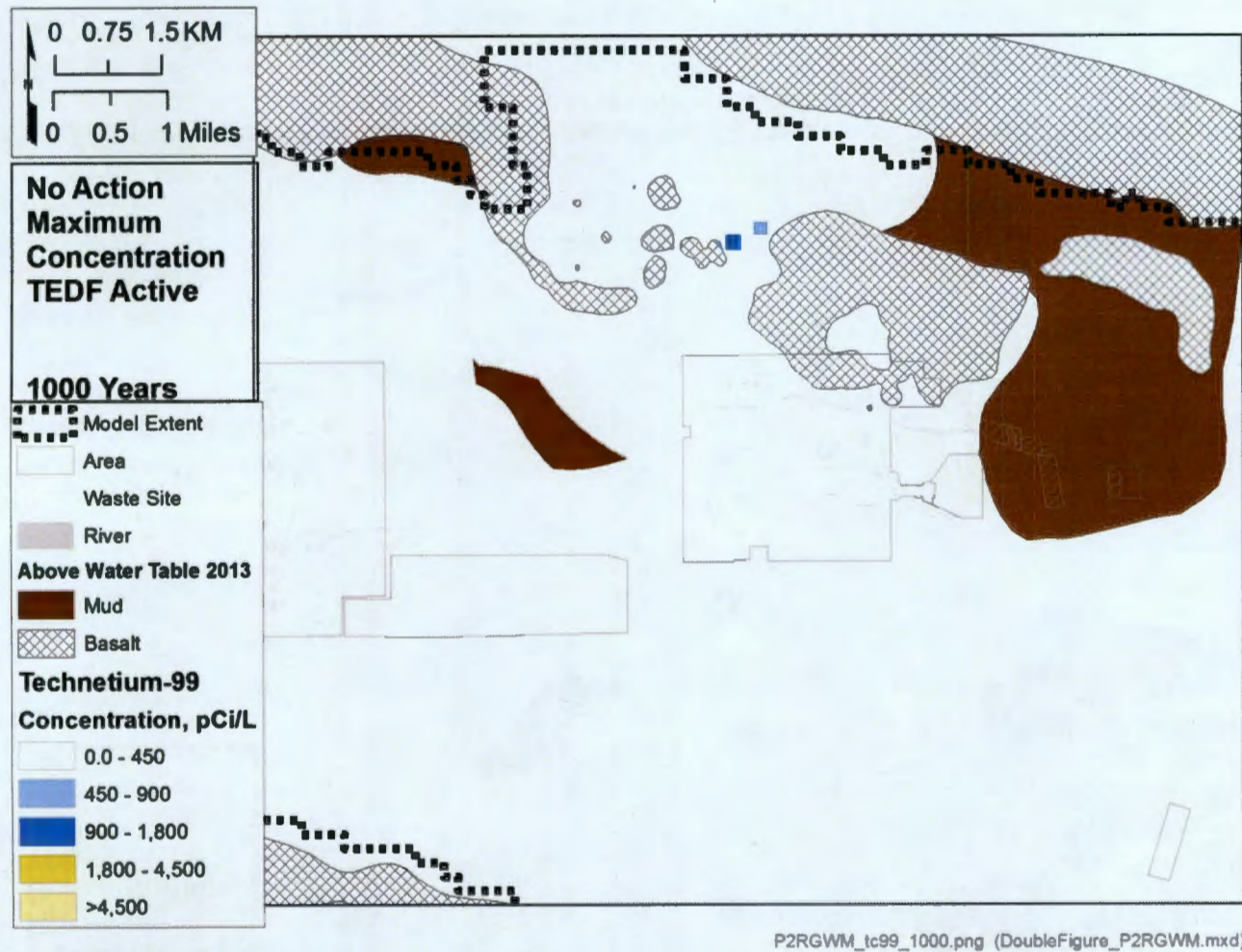


Figure B-298 - Plan view contours of the technetium-99 plume at simulation time 1000 years based on the TEDF future use simulation using maximum concentration initial conditions

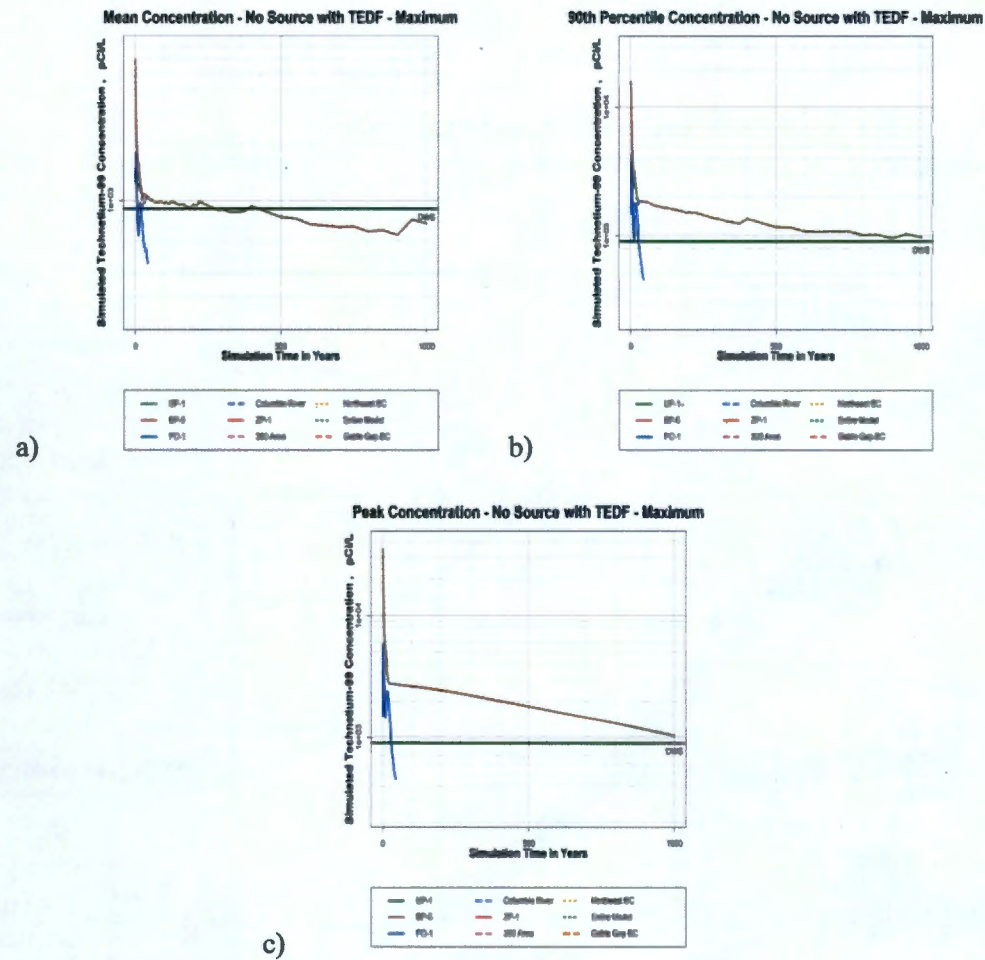


Figure B-299 - Statistical summary of simulated concentration within subregions of the model domain for the technetium-99 plume for the TEDF future use simulation using maximum concentration initial conditions.

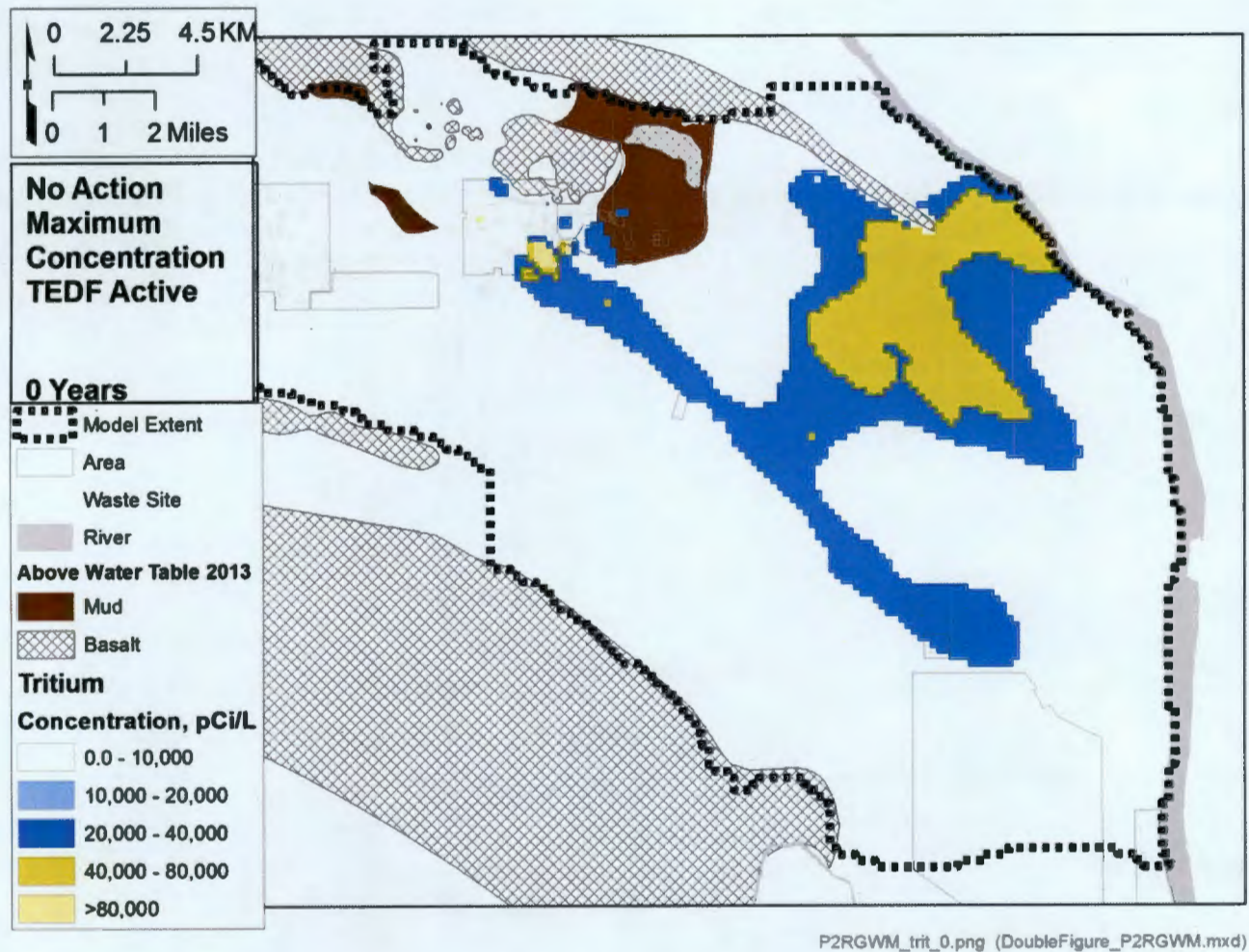


Figure B-300 - Plan view contours of the tritium plume at simulation time 0 years based on the TEDF future use simulation using maximum concentration initial conditions

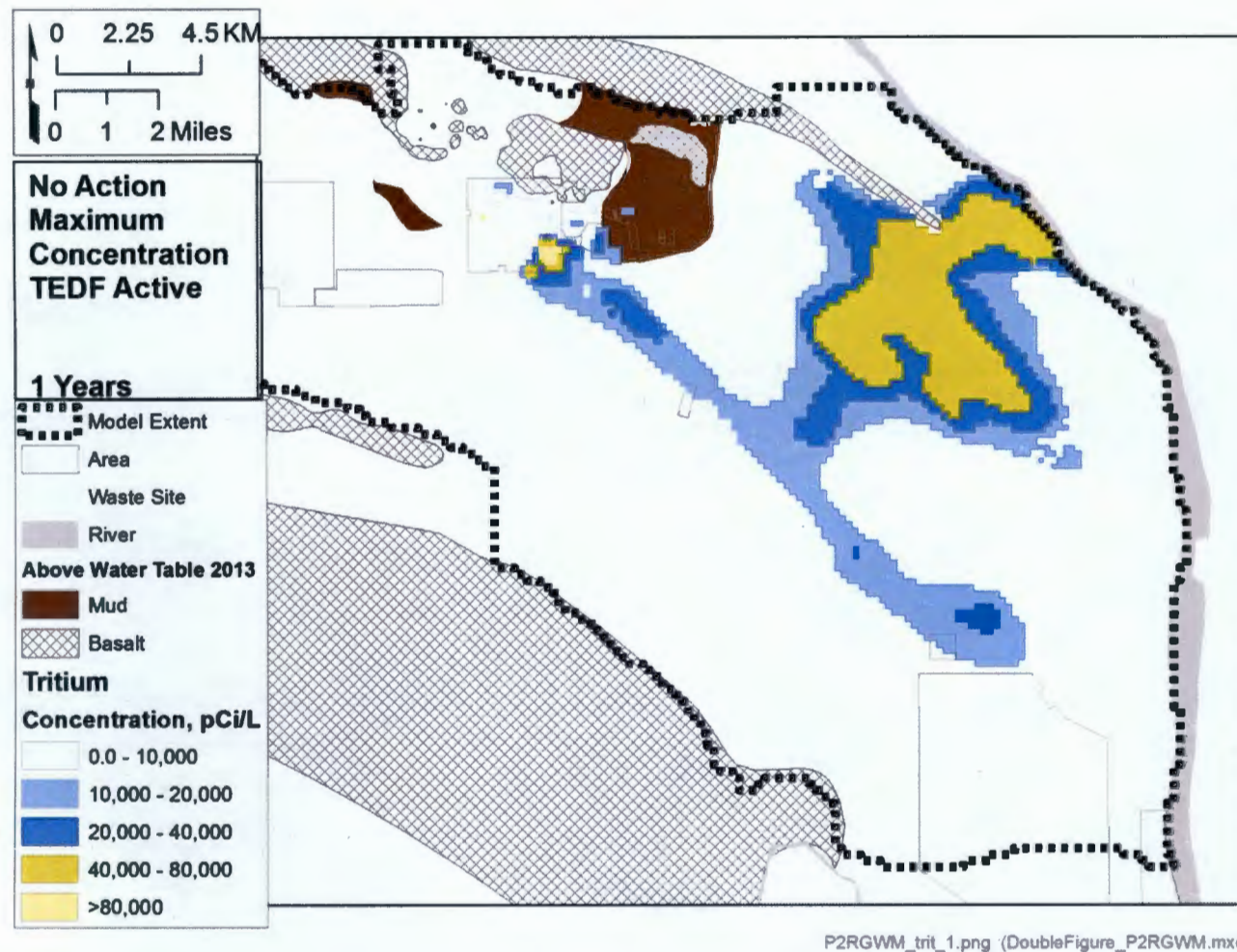


Figure B-301 - Plan view contours of the tritium plume at simulation time 1 years based on the TEDF future use simulation using maximum concentration initial conditions

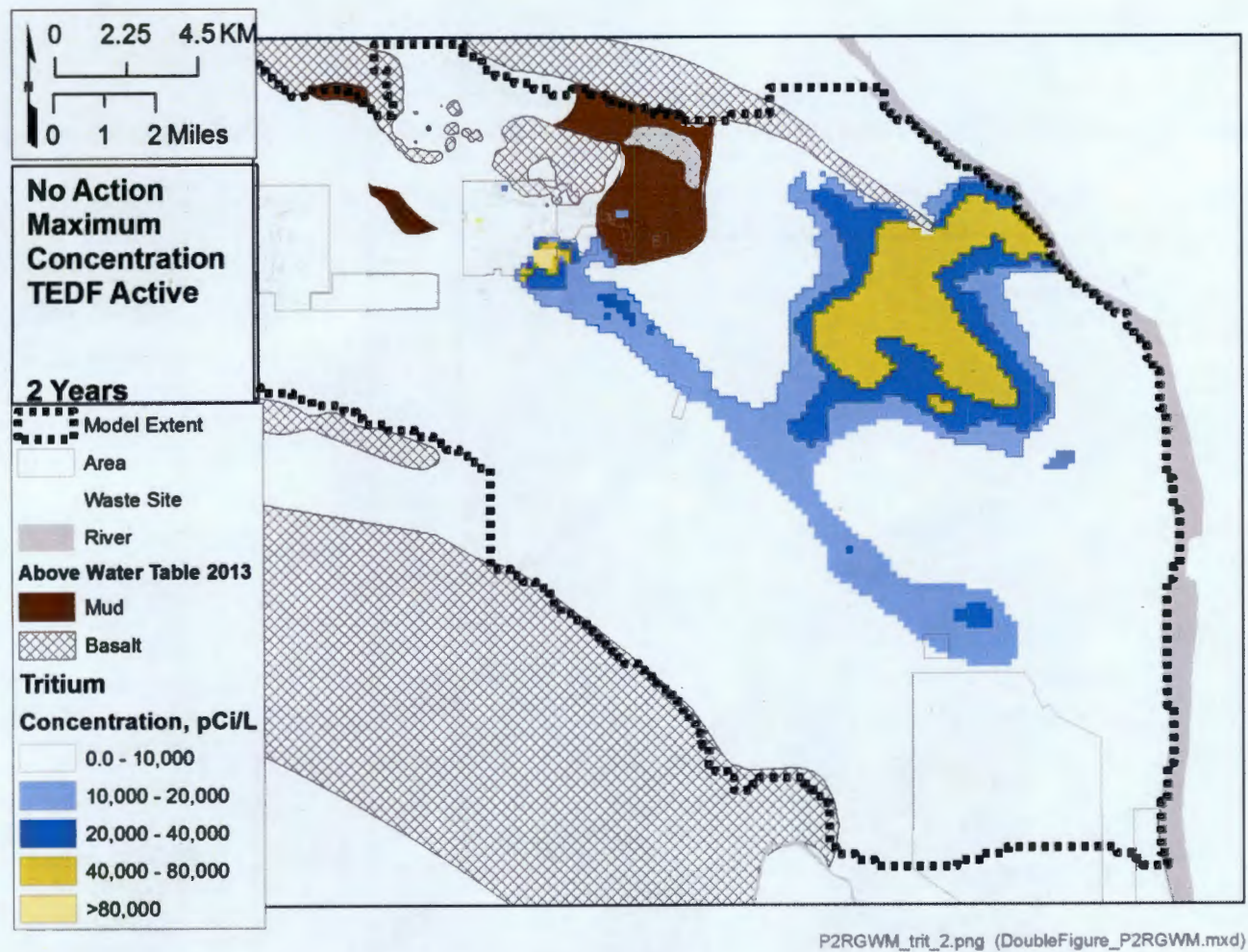


Figure B-302 - Plan view contours of the tritium plume at simulation time 2 years based on the TEDF future use simulation using maximum concentration initial conditions

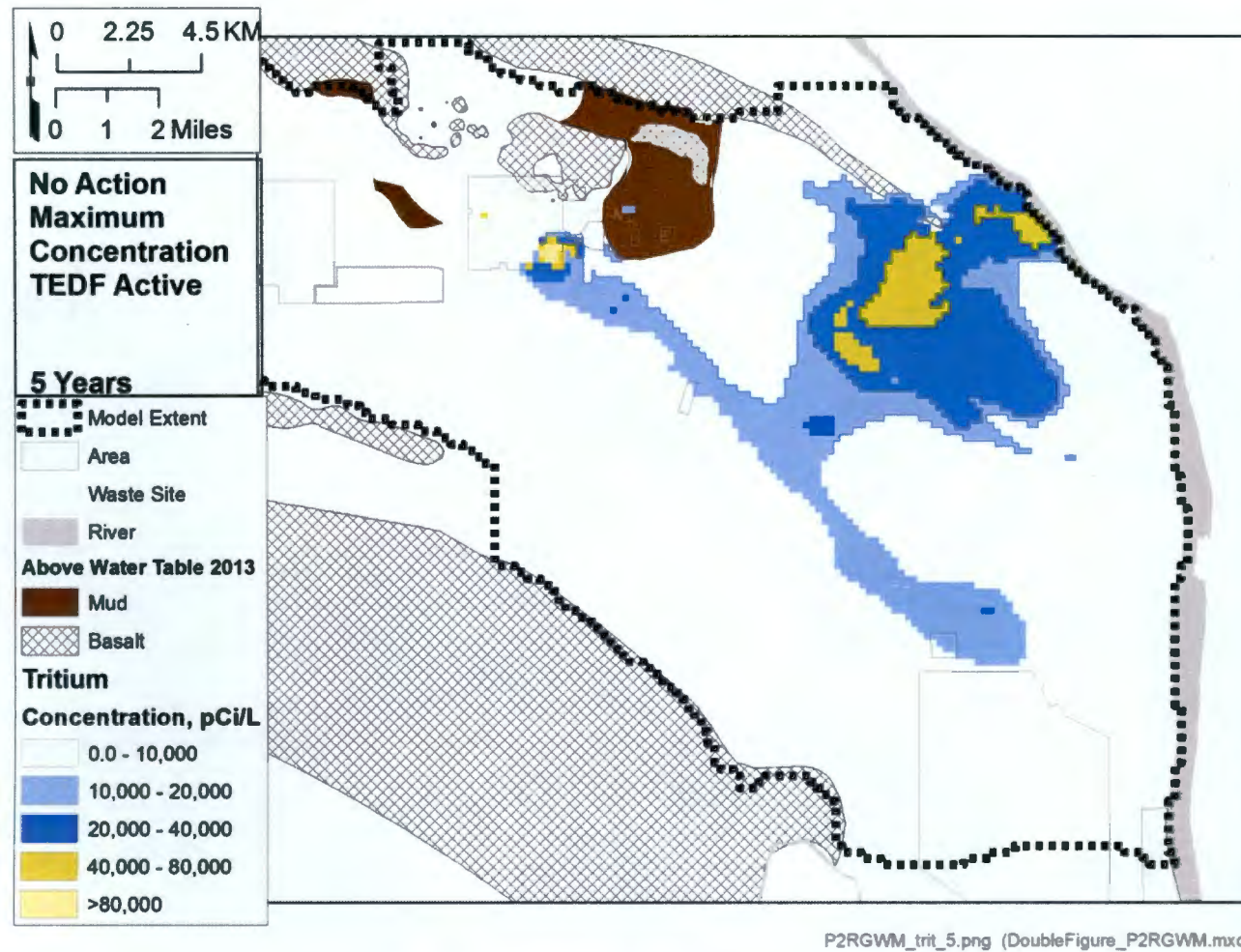
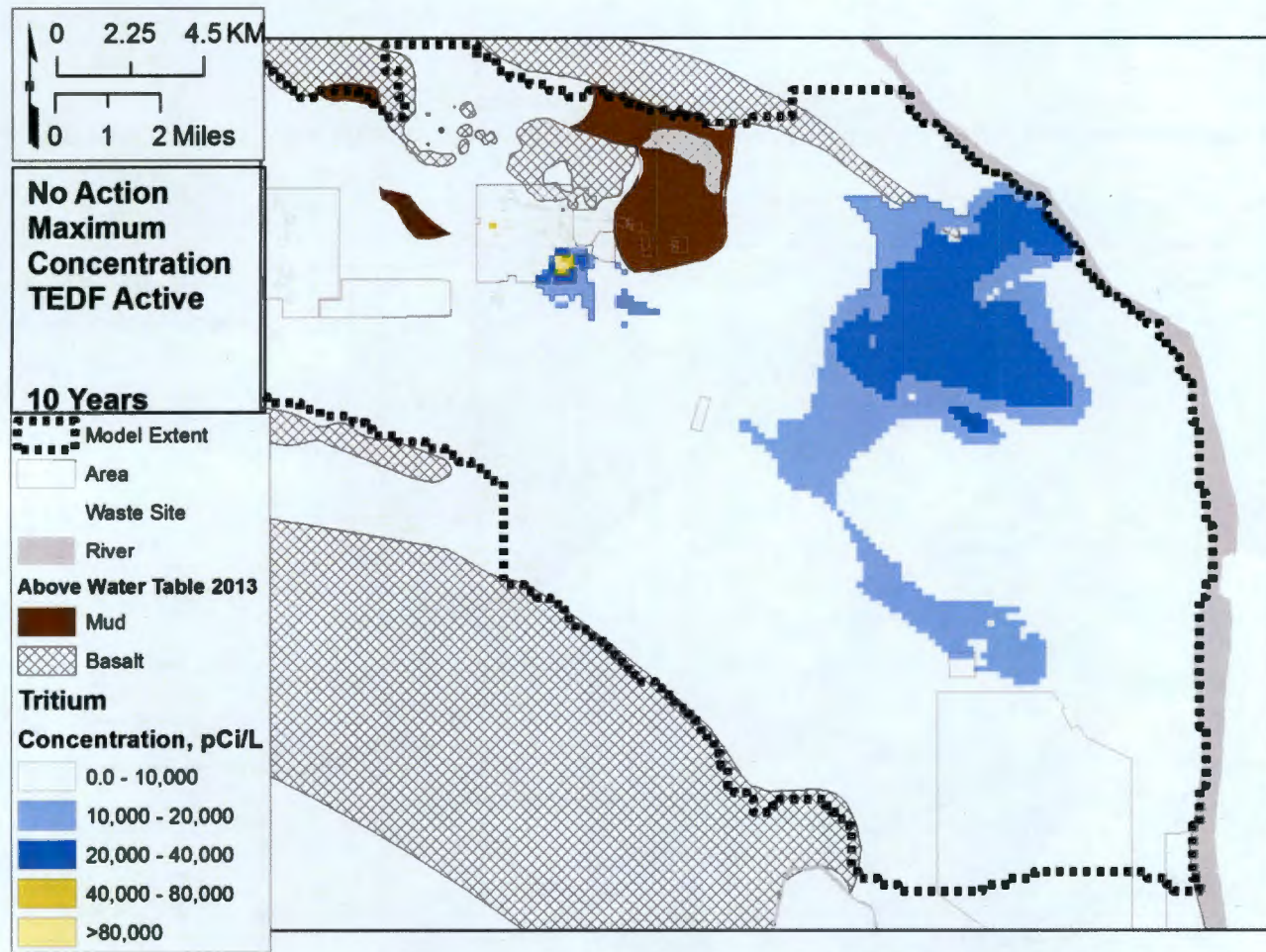


Figure B-303 - Plan view contours of the tritium plume at simulation time 5 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_trit_10.png (DoubleFigure_P2RGWM.mxd)

Figure B-304 - Plan view contours of the tritium plume at simulation time 10 years based on the TEDF future use simulation using maximum concentration initial conditions

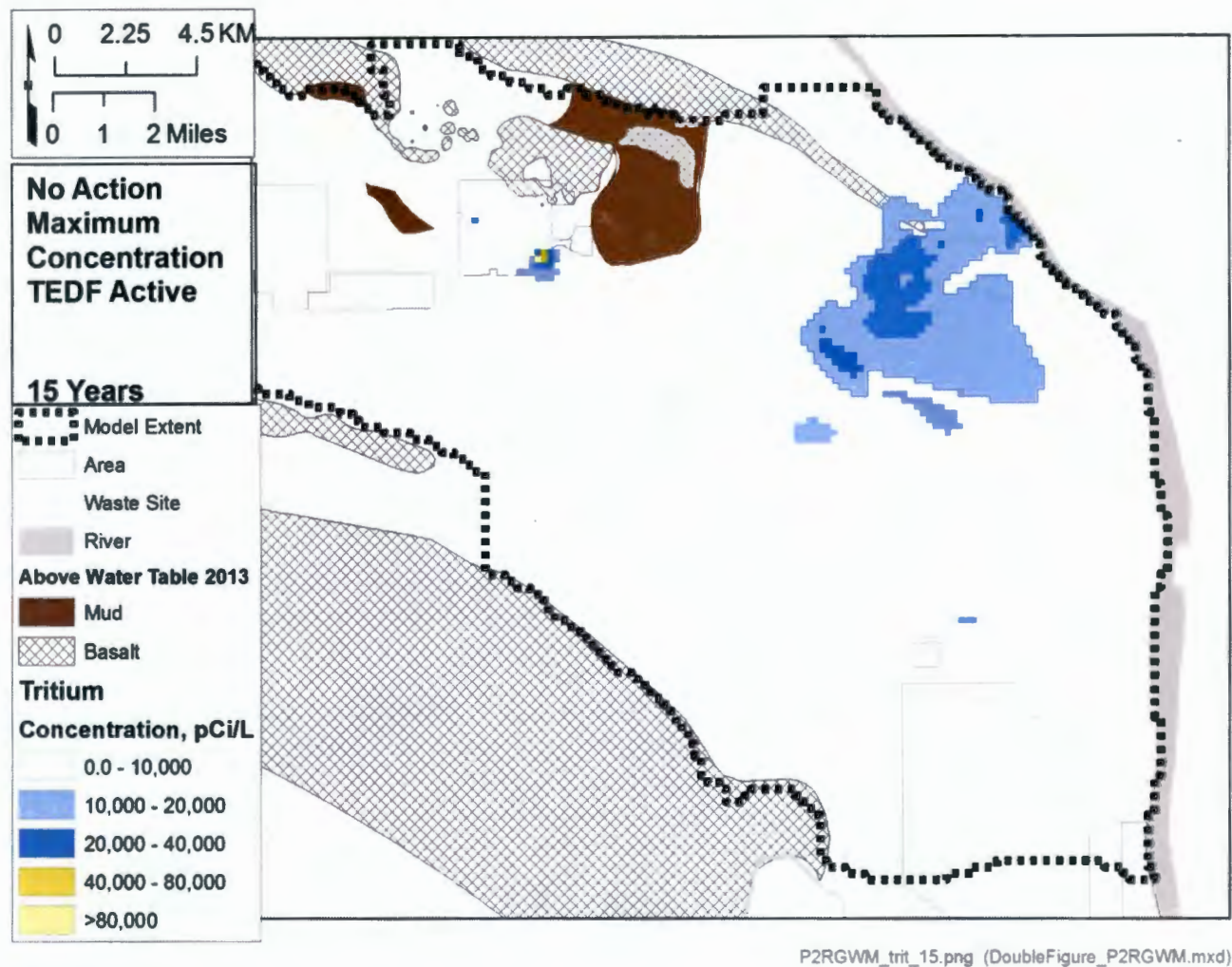


Figure B-305 - Plan view contours of the tritium plume at simulation time 15 years based on the TEDF future use simulation using maximum concentration initial conditions

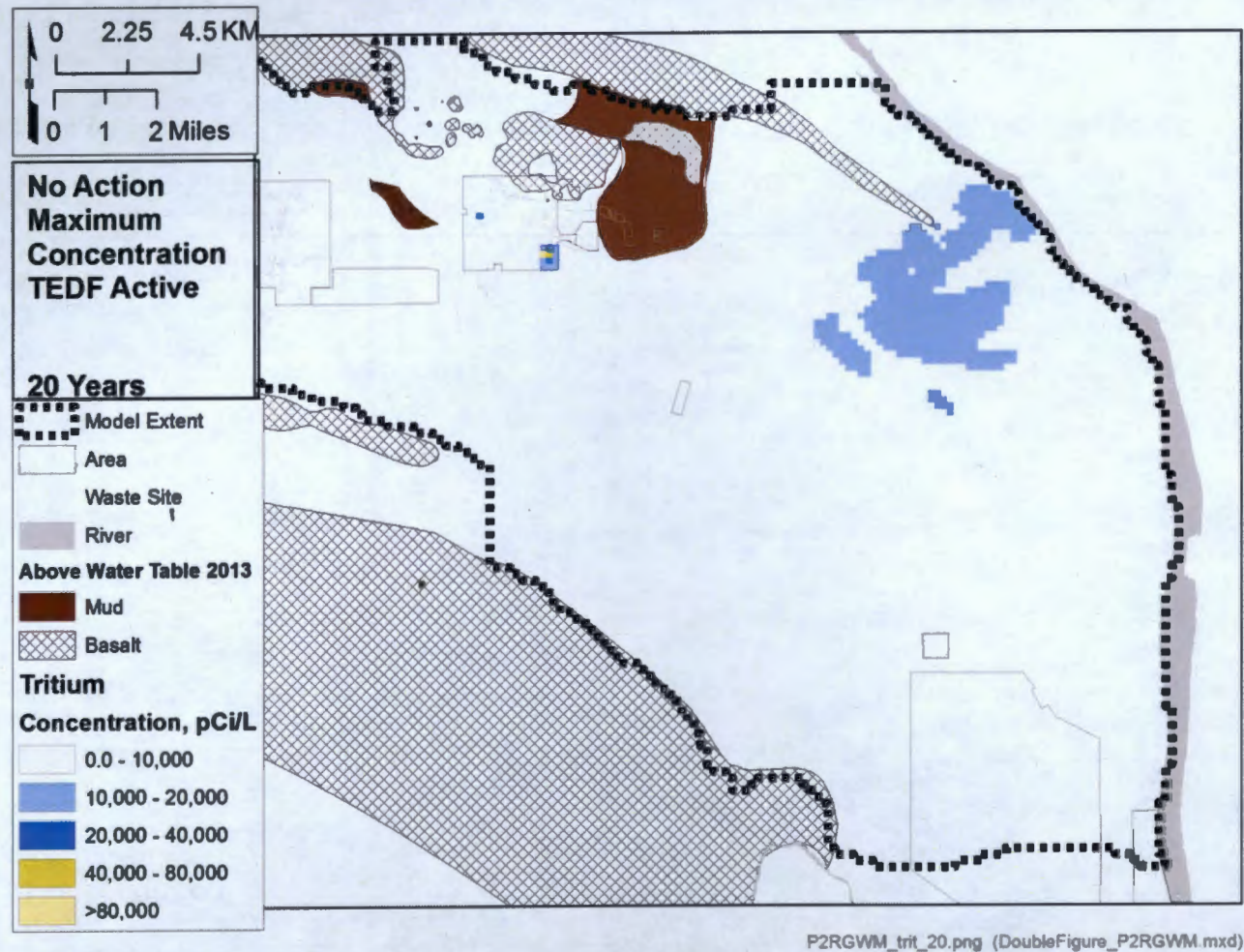
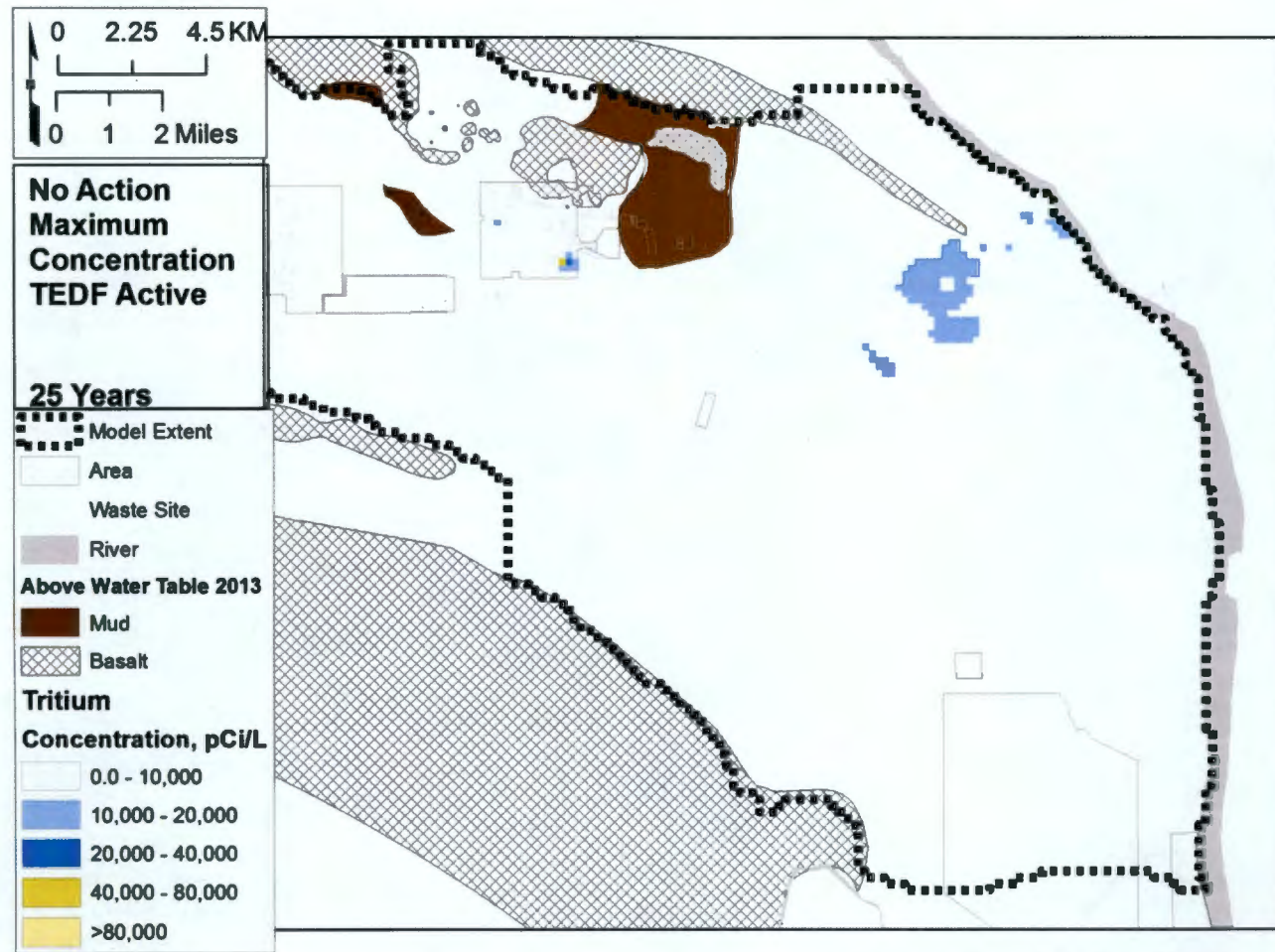
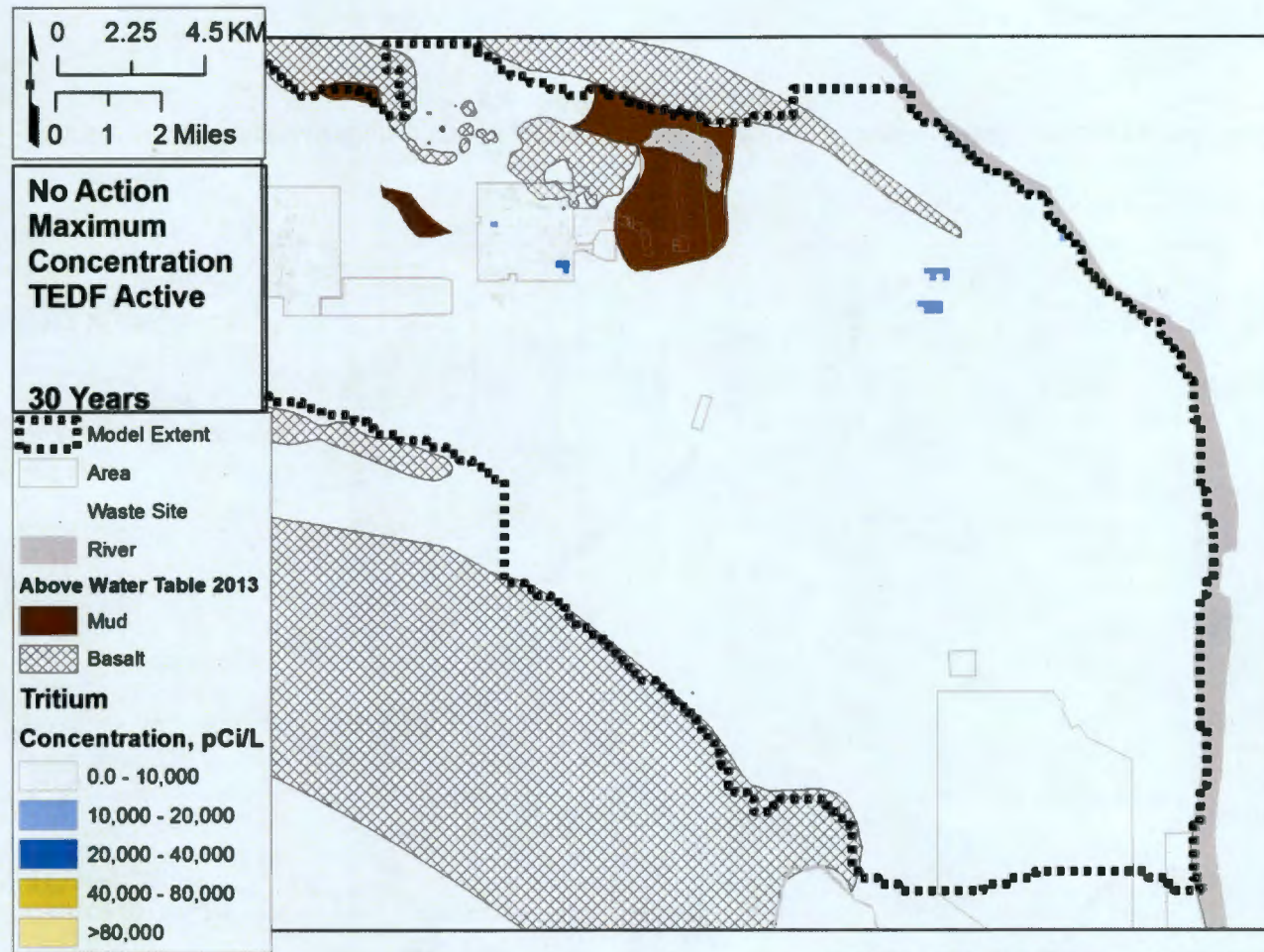


Figure B-306 - Plan view contours of the tritium plume at simulation time 20 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_trit_25.png (DoubleFigure_P2RGWM.mxd)

Figure B-307 - Plan view contours of the tritium plume at simulation time 25 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_trit_30.png (DoubleFigure_P2RGWM.mxd)

Figure B-308 - Plan view contours of the tritium plume at simulation time 30 years based on the TEDF future use simulation using maximum concentration initial conditions

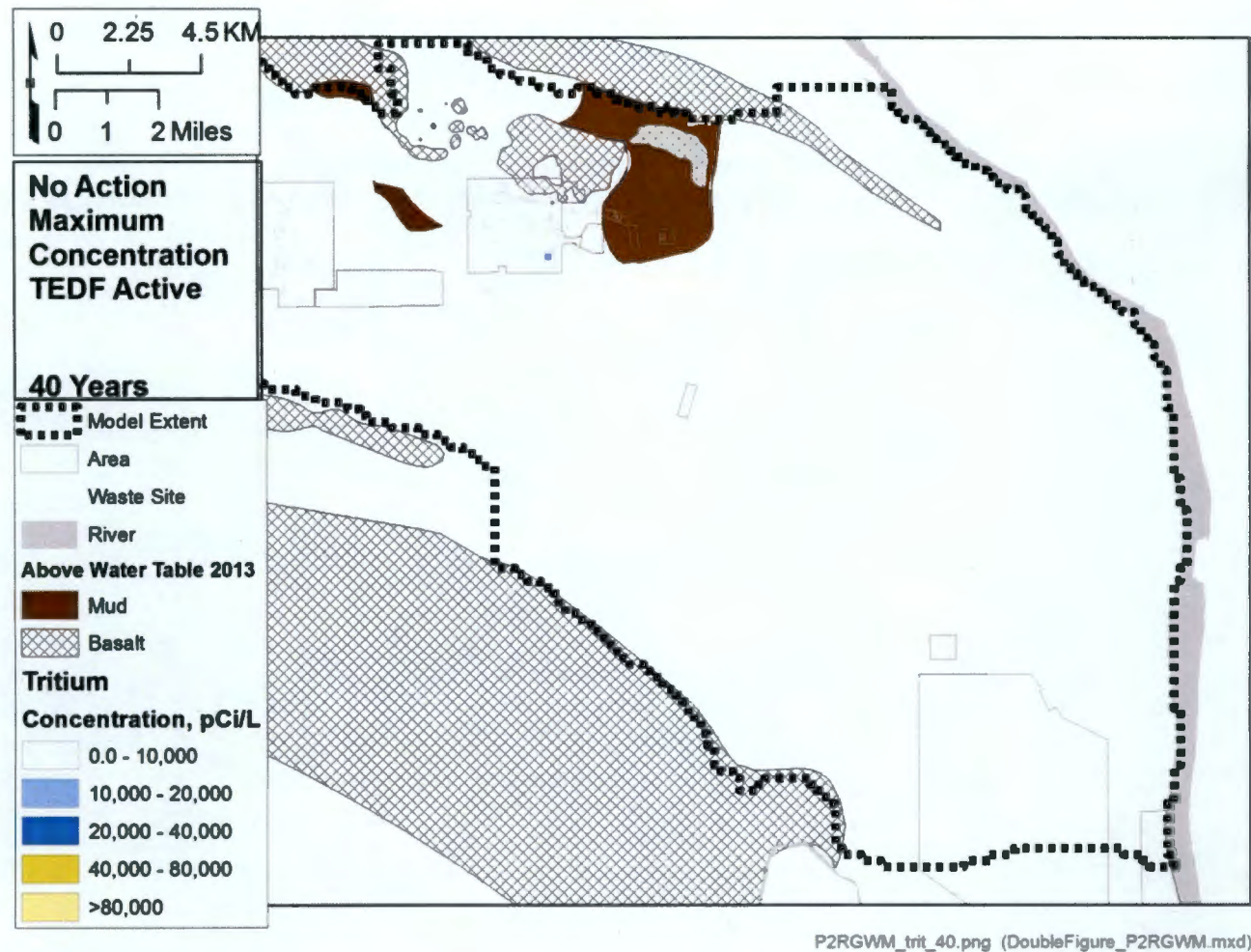


Figure B-309 - Plan view contours of the tritium plume at simulation time 40 years based on the TEDF future use simulation using maximum concentration initial conditions

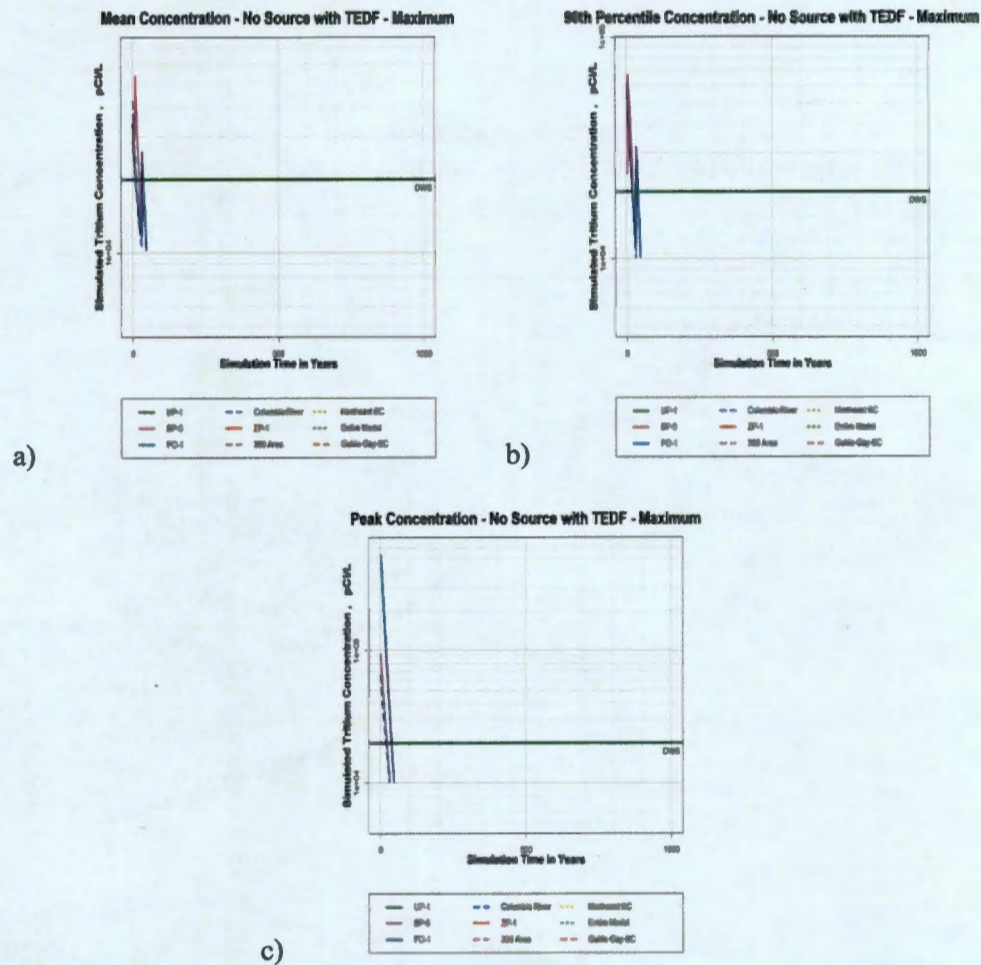
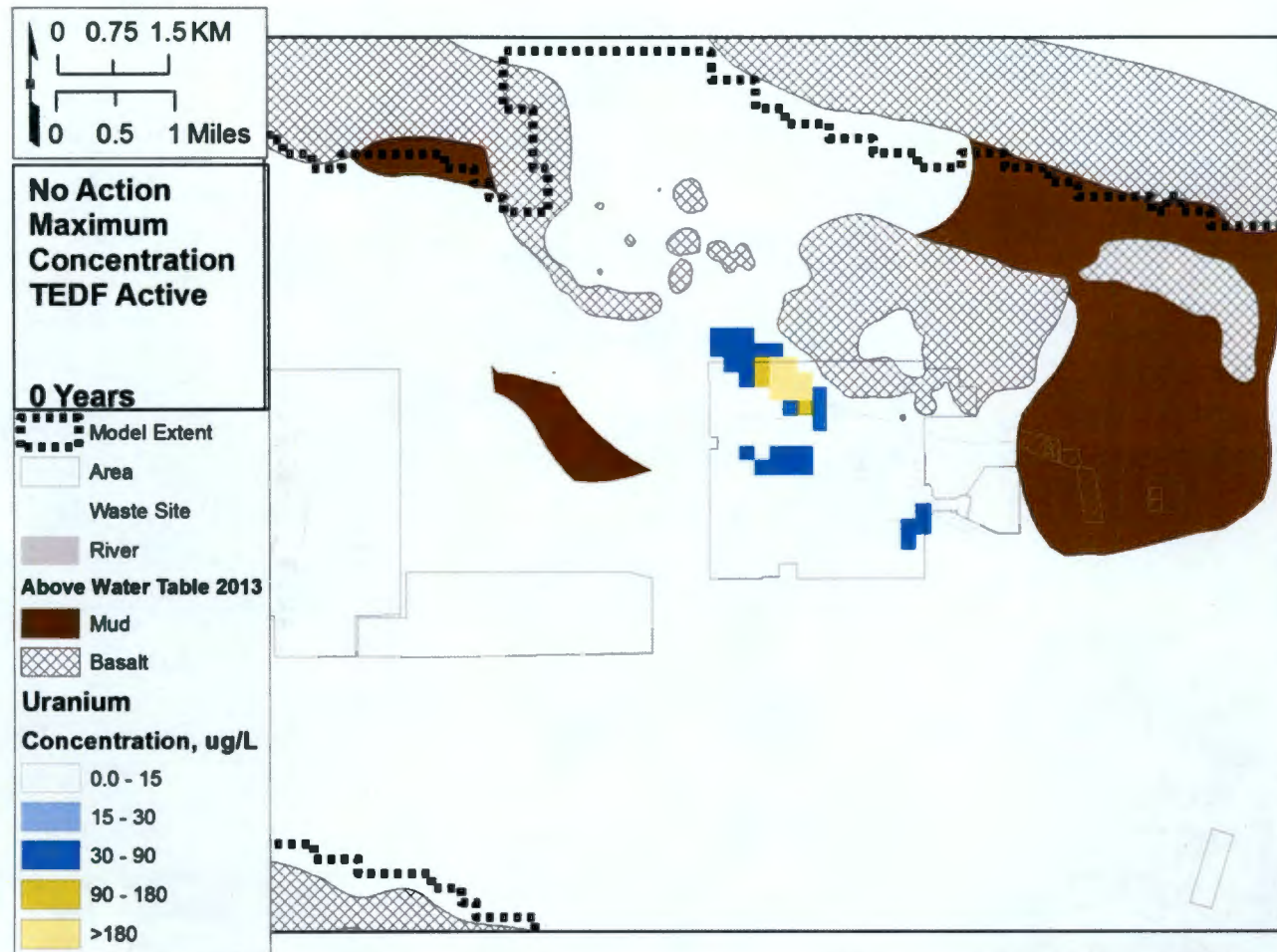
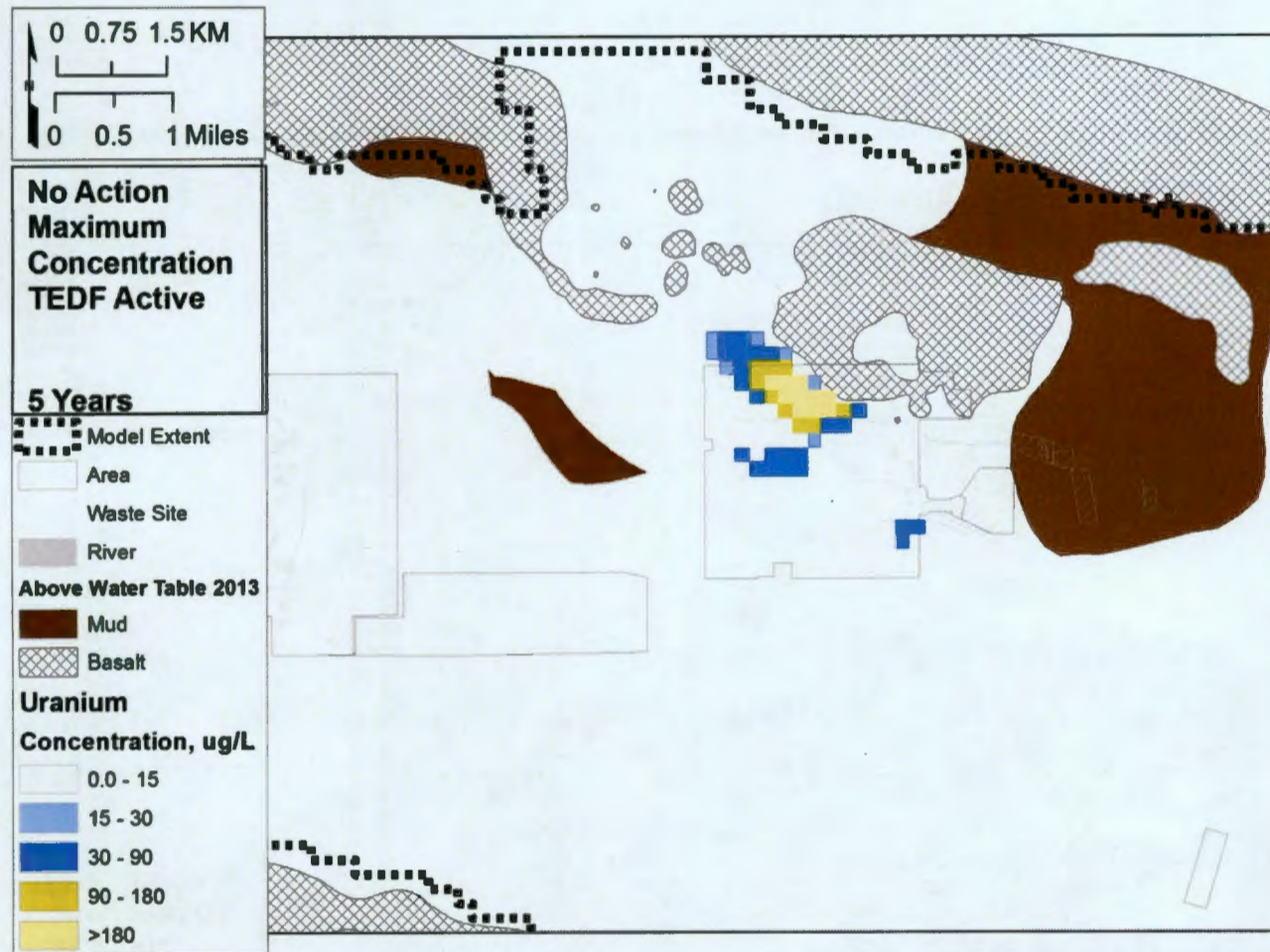


Figure B-310 - Statistical summary of simulated concentration within subregions of the model domain for the tritium plume for the TEDF future use simulation using maximum concentration initial conditions.



P2RGWM_u238_0.png (DoubleFigure_P2RGWM.mxd)

Figure B-311 - Plan view contours of the uranium plume at simulation time 0 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_u238_5.png (DoubleFigure_P2RGWM.mxd)

Figure B-312 - Plan view contours of the uranium plume at simulation time 5 years based on the TEDF future use simulation using maximum concentration initial conditions

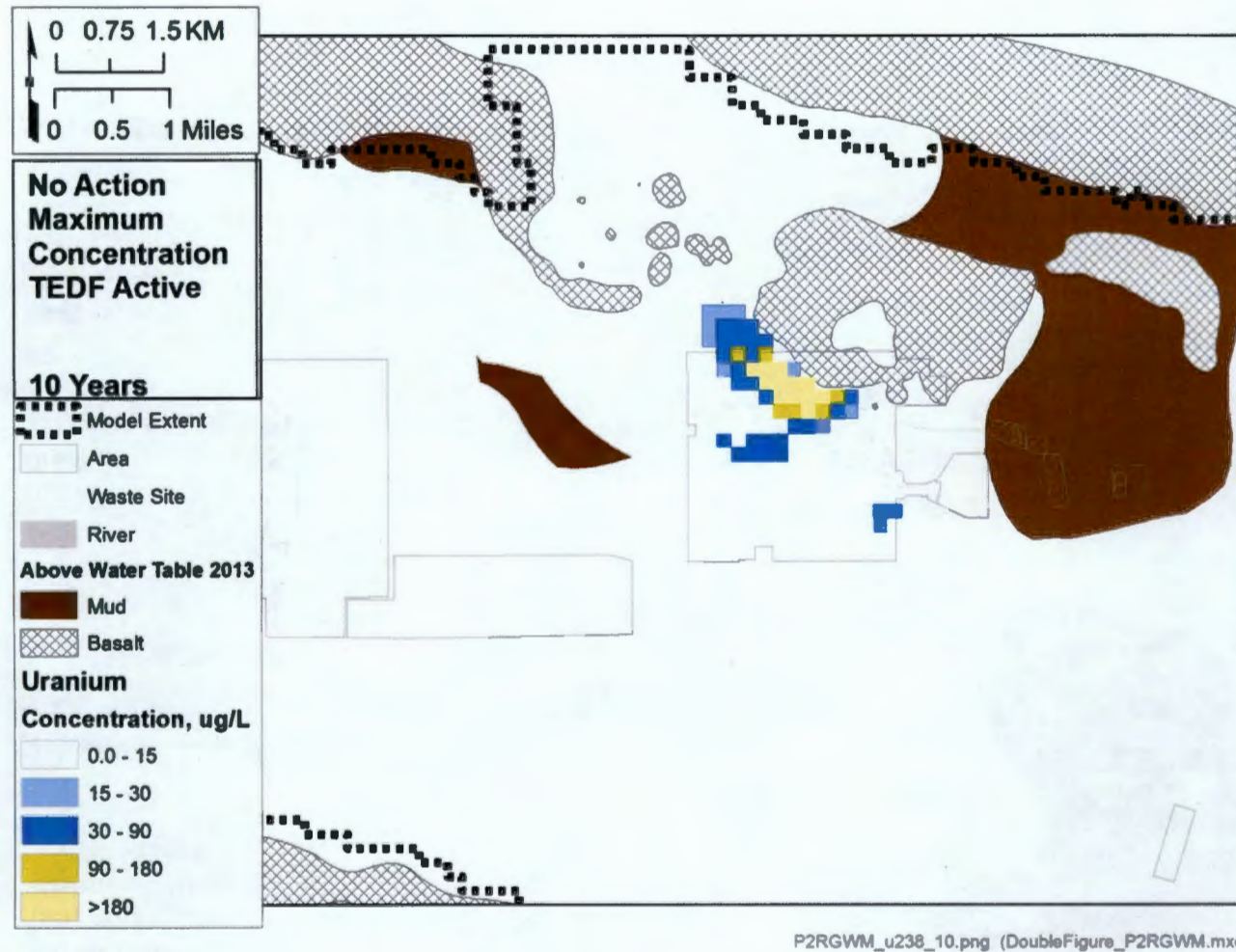
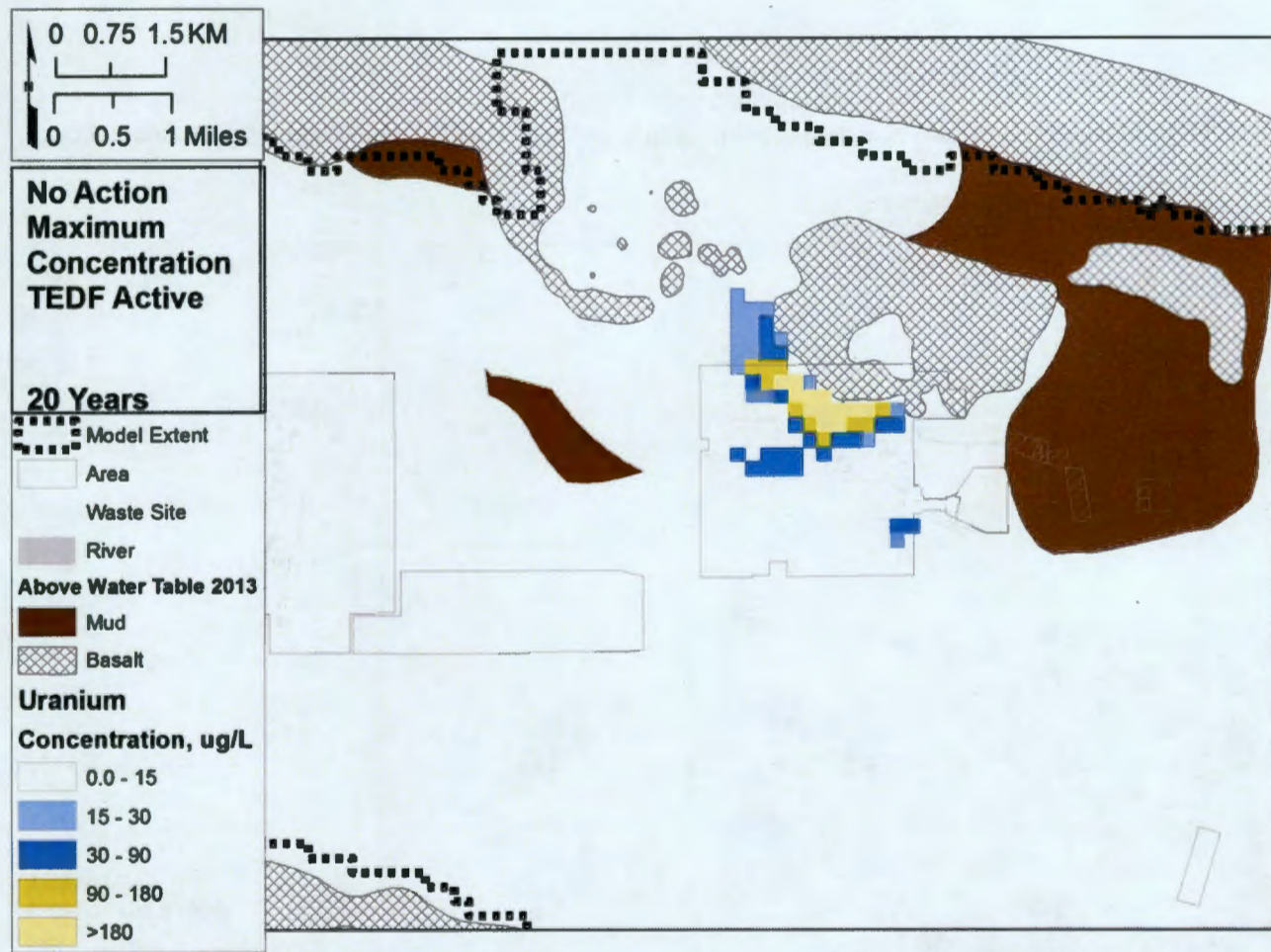


Figure B-313 - Plan view contours of the uranium plume at simulation time 10 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_u238_20.png (DoubleFigure_P2RGWM.mxd)

Figure B-314 - Plan view contours of the uranium plume at simulation time 20 years based on the TEDF future use simulation using maximum concentration initial conditions

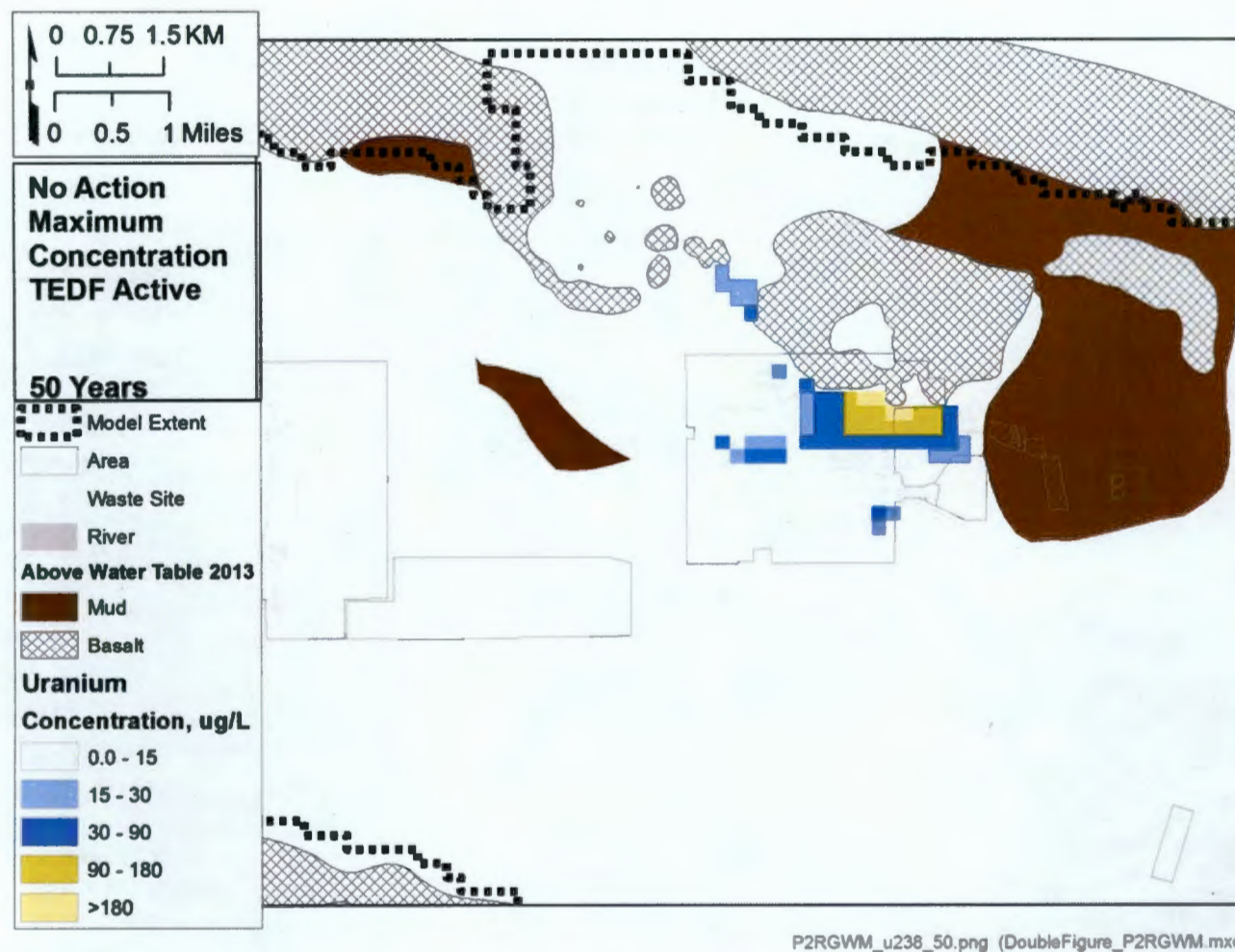
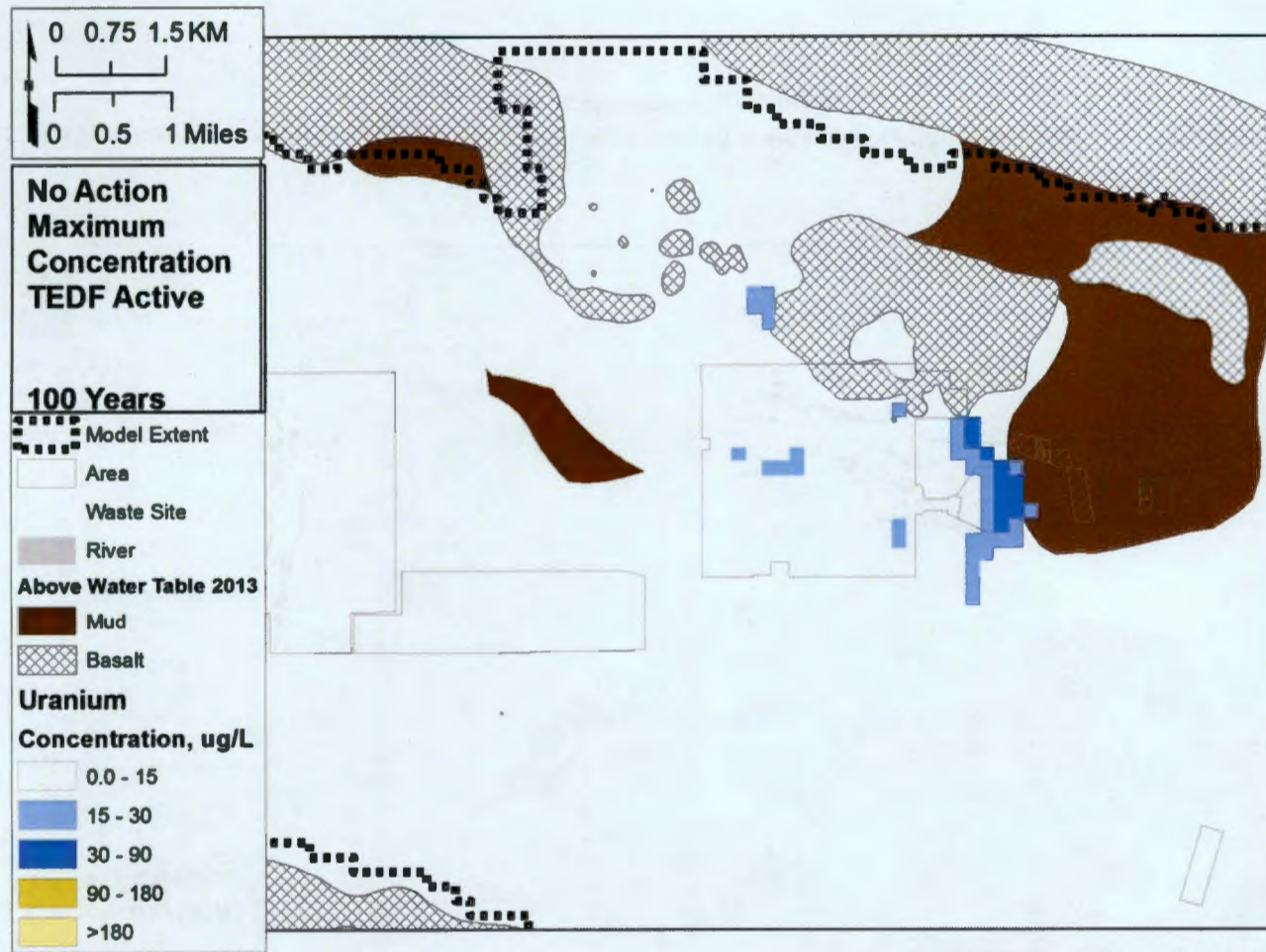


Figure B-315 - Plan view contours of the uranium plume at simulation time 50 years based on the TEDF future use simulation using maximum concentration initial conditions



P2RGWM_u238_100.png (DoubleFigure_P2RGWM.mxd)

Figure B-316 - Plan view contours of the uranium plume at simulation time 100 years based on the TEDF future use simulation using maximum concentration initial conditions

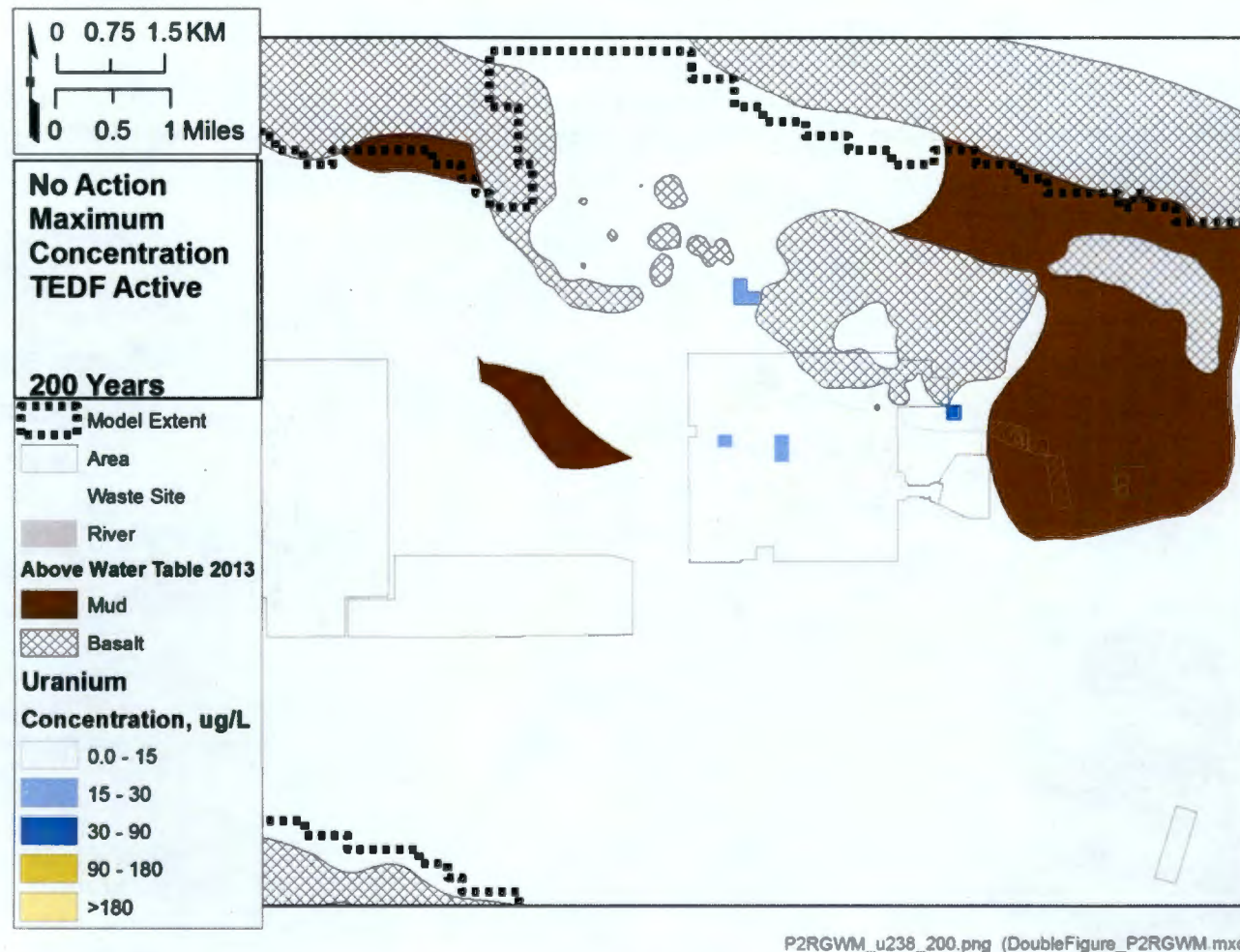


Figure B-317 - Plan view contours of the uranium plume at simulation time 200 years based on the TEDF future use simulation using maximum concentration initial conditions

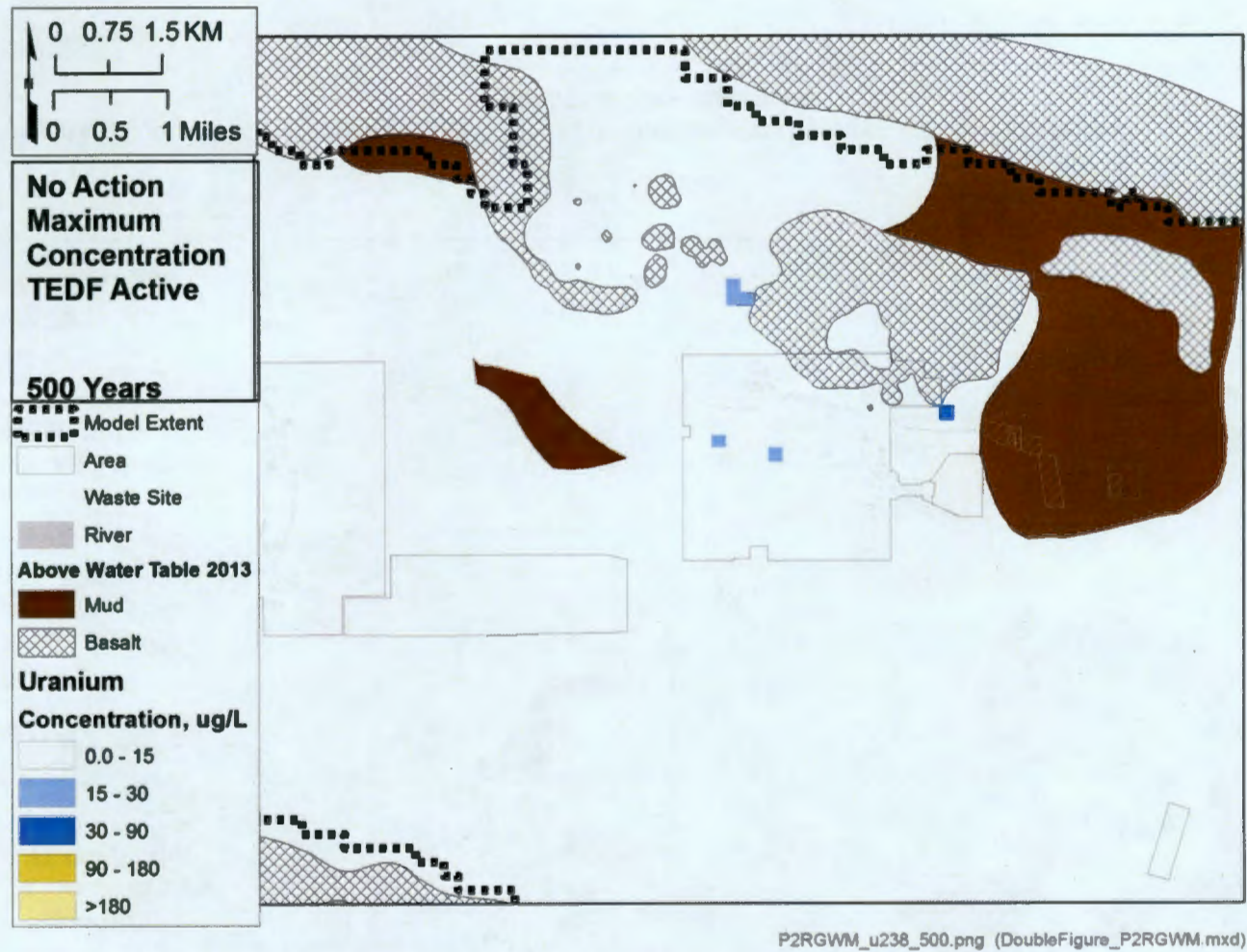


Figure B-318 - Plan view contours of the uranium plume at simulation time 500 years based on the TEDF future use simulation using maximum concentration initial conditions

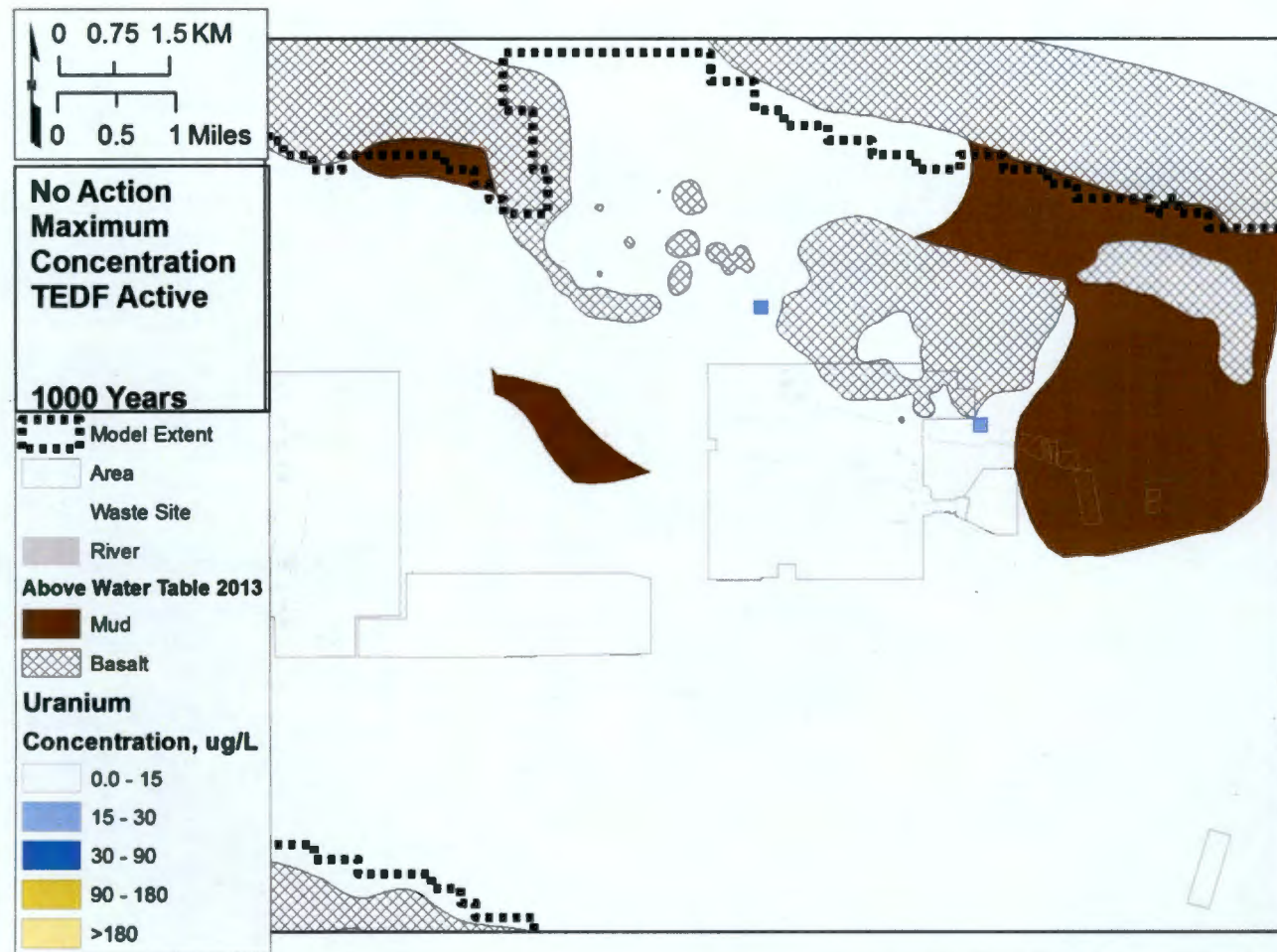


Figure B-319 - Plan view contours of the uranium plume at simulation time 1000 years based on the TEDF future use simulation using maximum concentration initial conditions

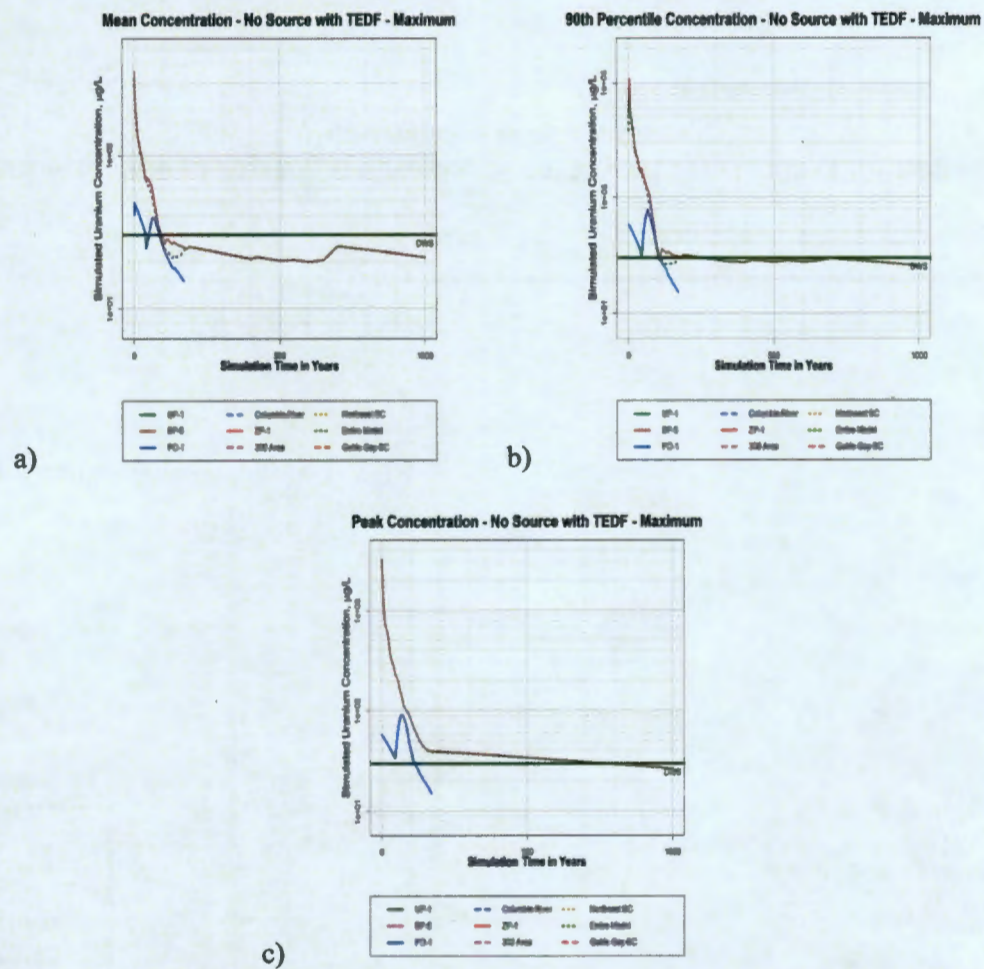
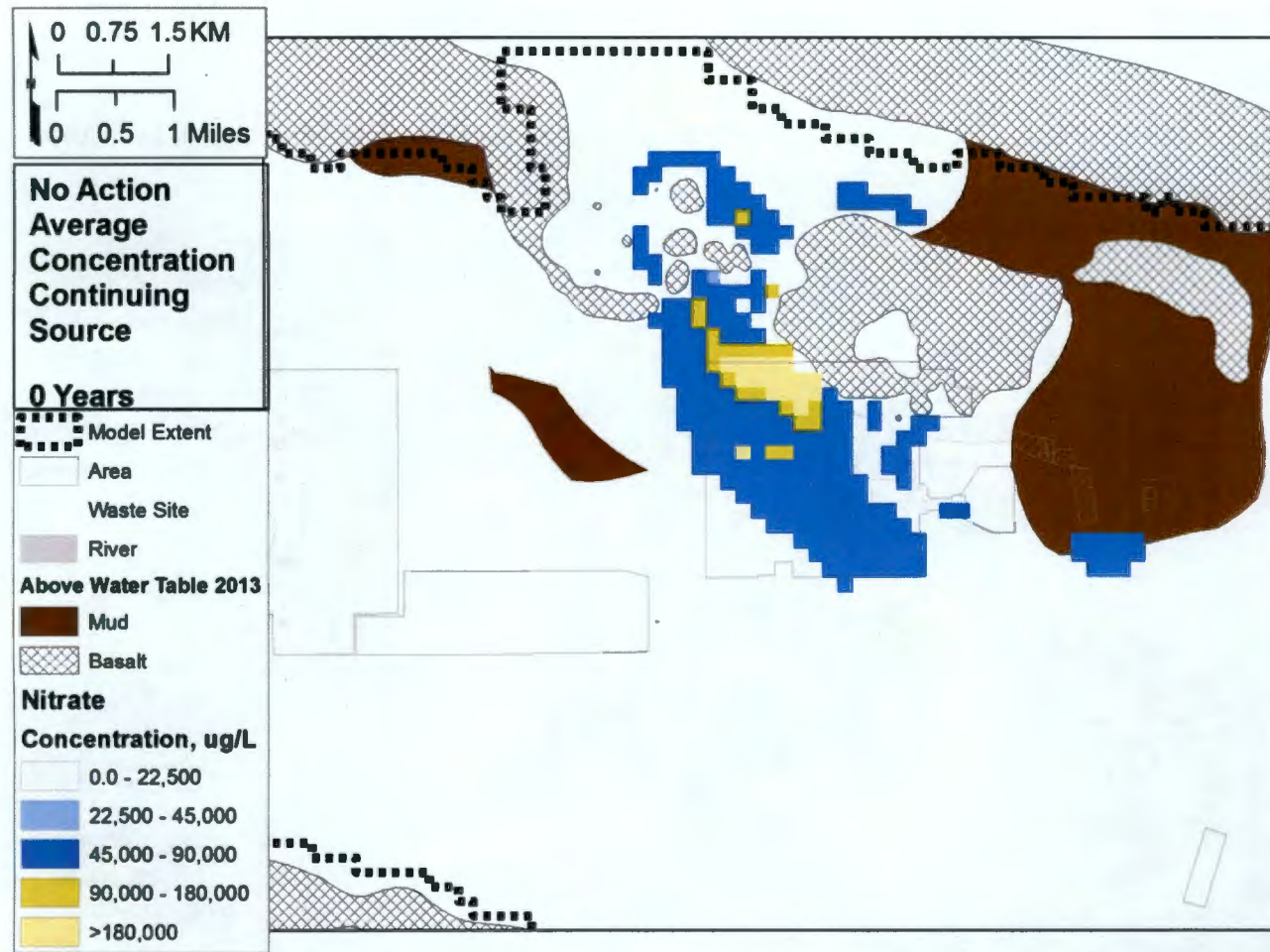
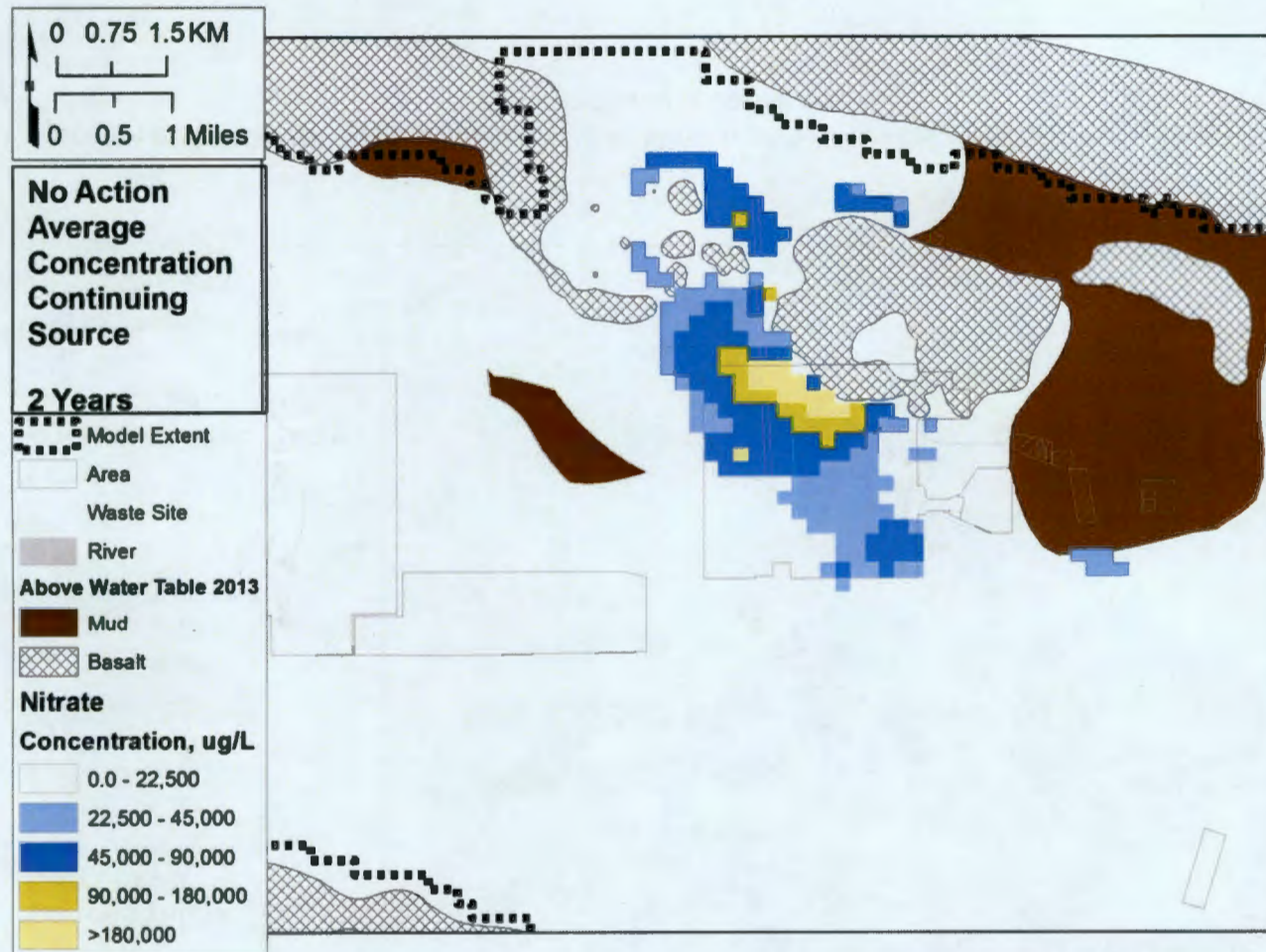


Figure B-320 - Statistical summary of simulated concentration within subregions of the model domain for the uranium plume for the TEDF future use simulation using maximum concentration initial conditions.



P2RGWM_no3_0.png (DoubleFigure_P2RGWM.mxd)

Figure B-321 - Plan view contours of the nitrate plume at simulation time 0 years based on the continuing source simulation using average concentration initial conditions



P2RGWM_no3_2.png (DoubleFigure_P2RGWM.mxd)

Figure B-322 - Plan view contours of the nitrate plume at simulation time 2 years based on the continuing source simulation using average concentration initial conditions

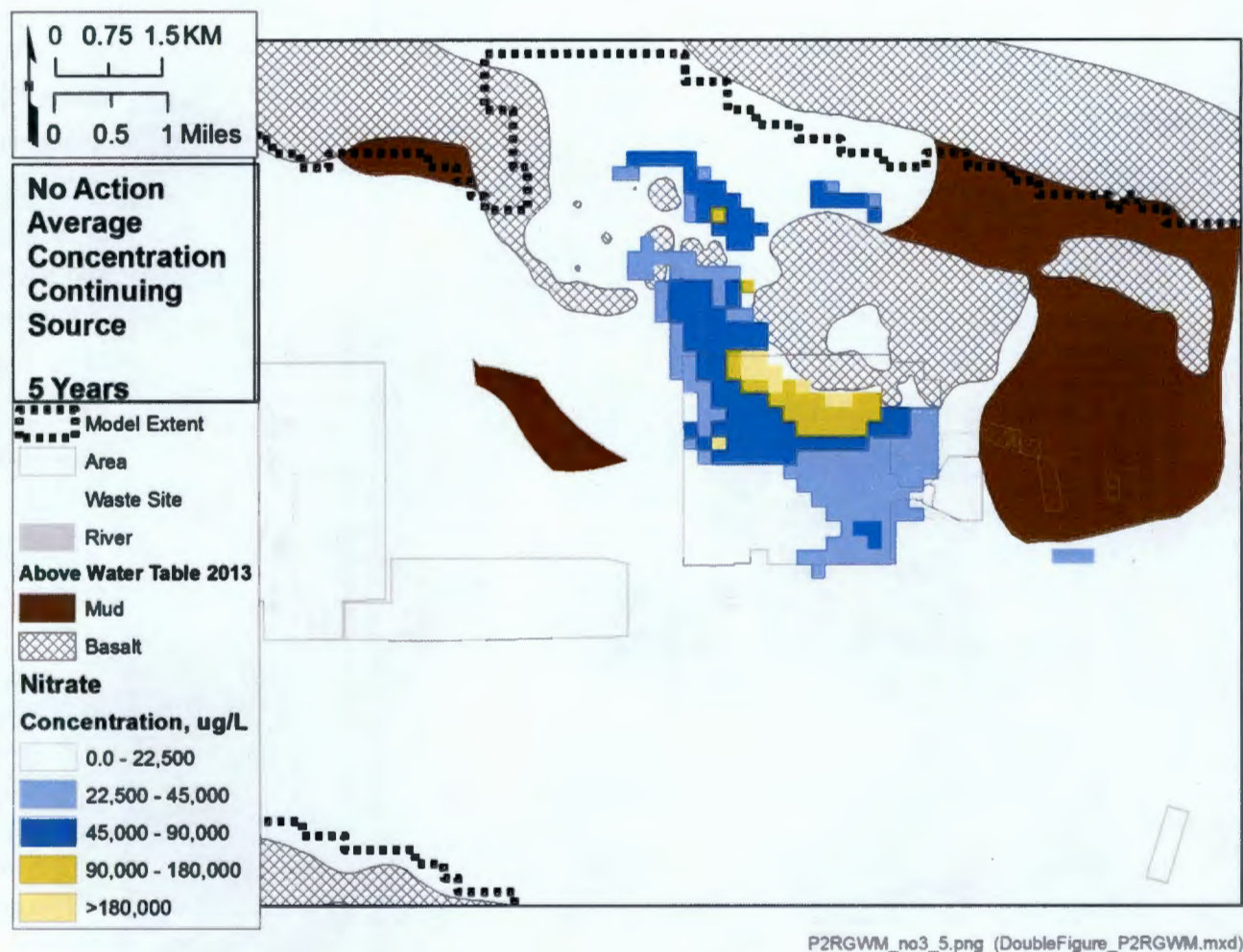
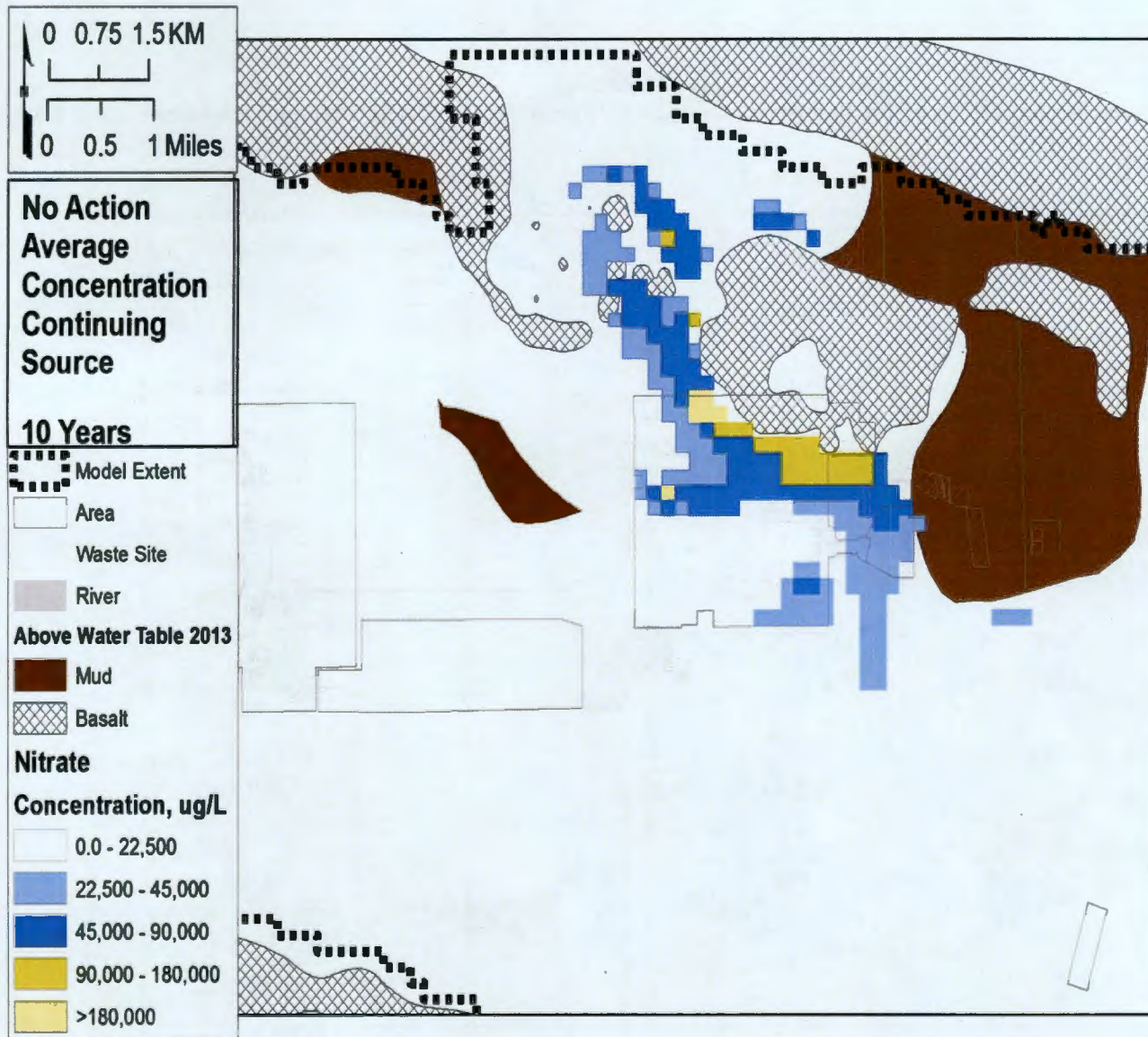
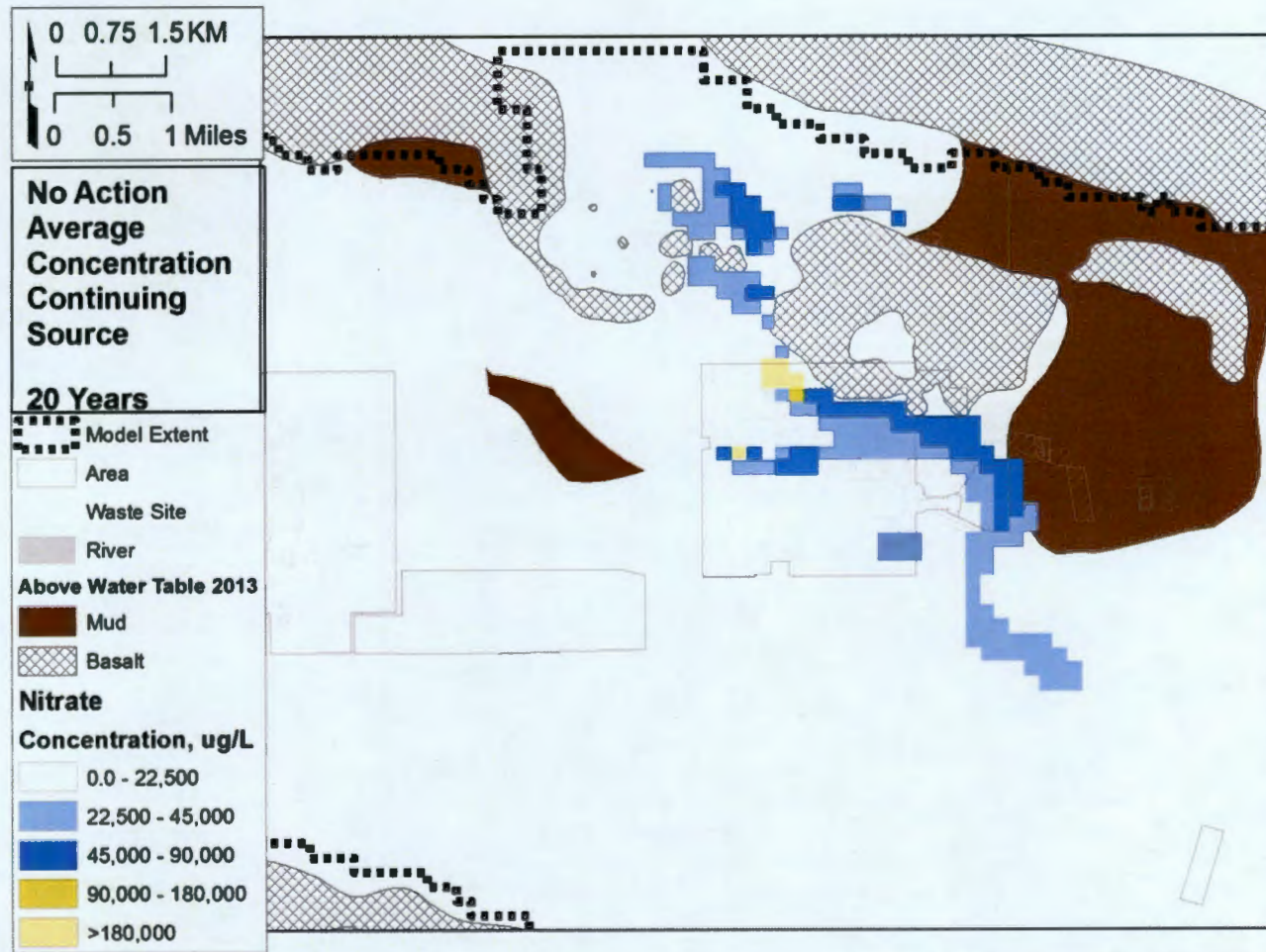


Figure B-323 - Plan view contours of the nitrate plume at simulation time 5 years based on the continuing source simulation using average concentration initial conditions



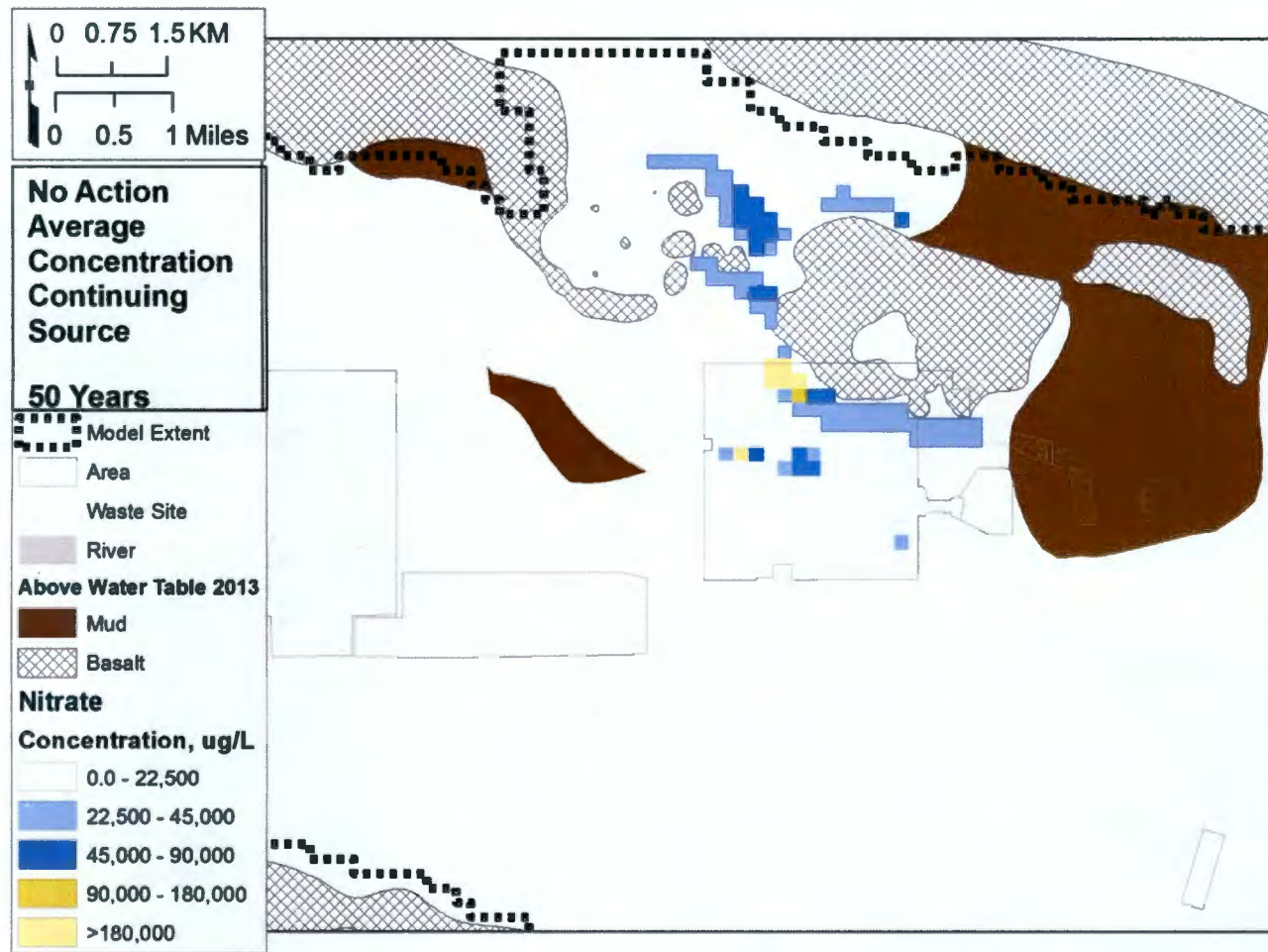
P2RGWM_no3_10.png (DoubleFigure_P2RGWM.mxd)

Figure B-324 - Plan view contours of the nitrate plume at simulation time 10 years based on the continuing source simulation using average concentration initial conditions



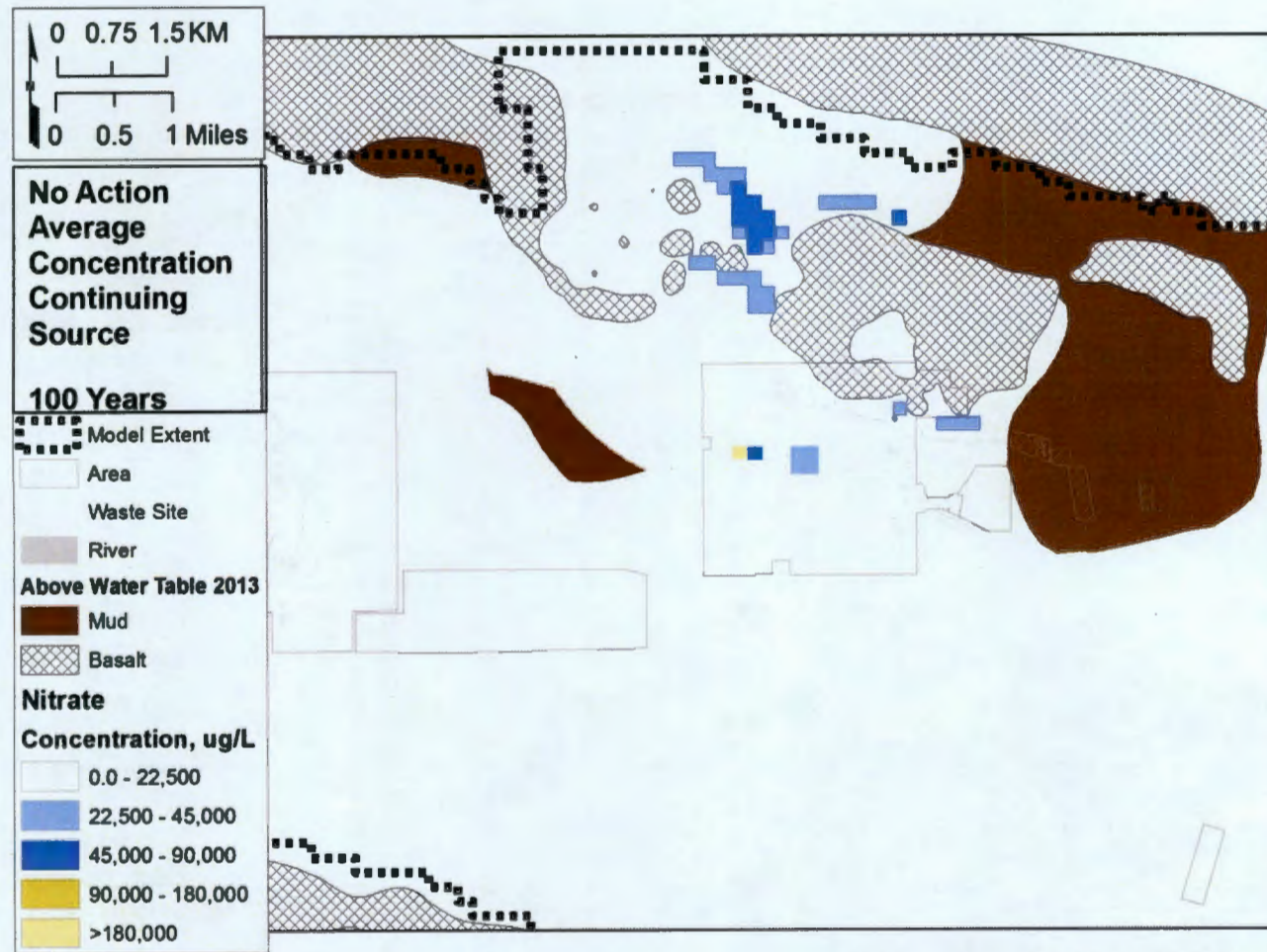
P2RGWM_no3_20.png (DoubleFigure_P2RGWM.mxd)

Figure B-325 - Plan view contours of the nitrate plume at simulation time 20 years based on the continuing source simulation using average concentration initial conditions



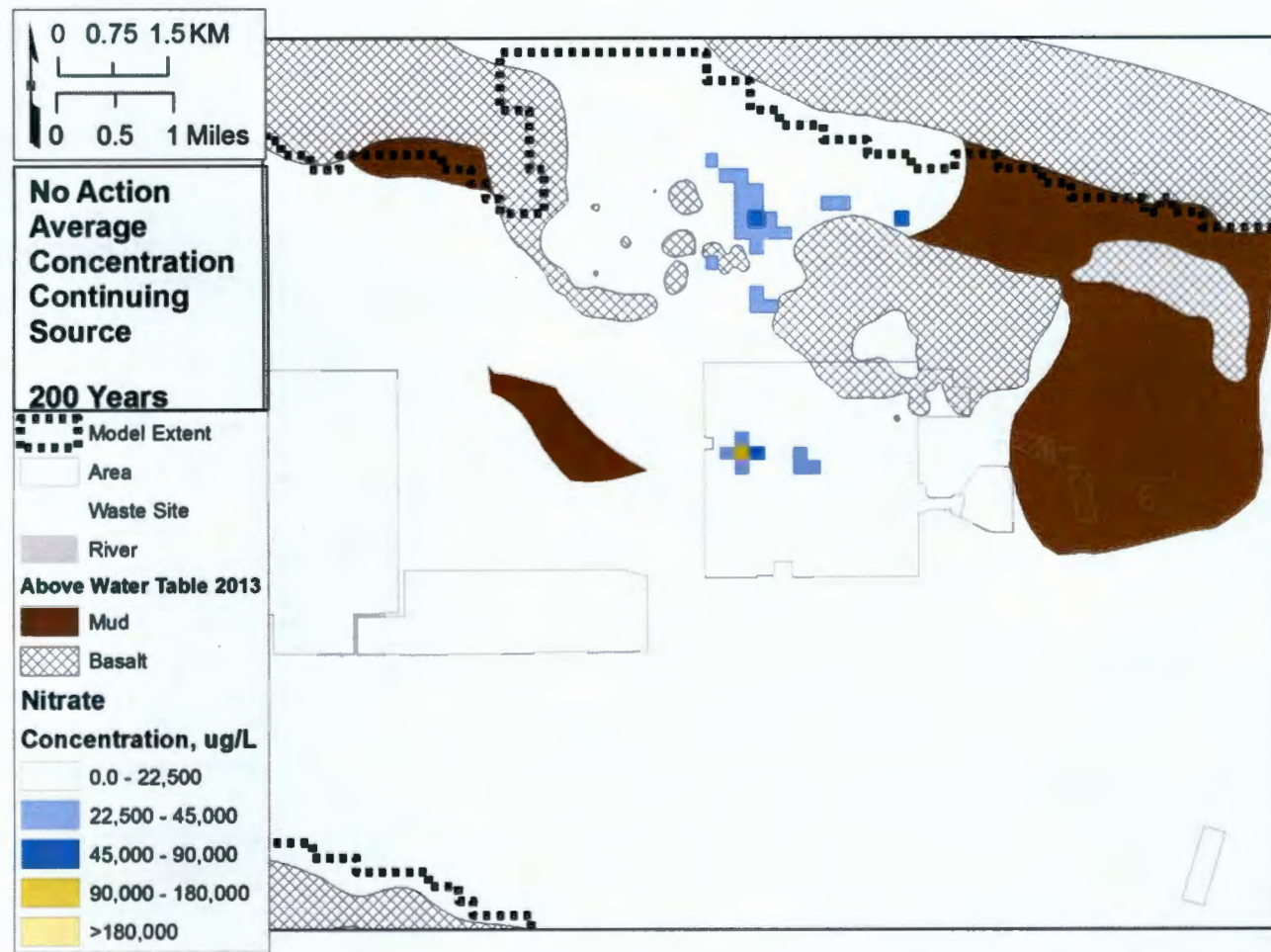
P2RGWM_no3_50.png (DoubleFigure_P2RGWM.mxd)

Figure B-326 - Plan view contours of the nitrate plume at simulation time 50 years based on the continuing source simulation using average concentration initial conditions



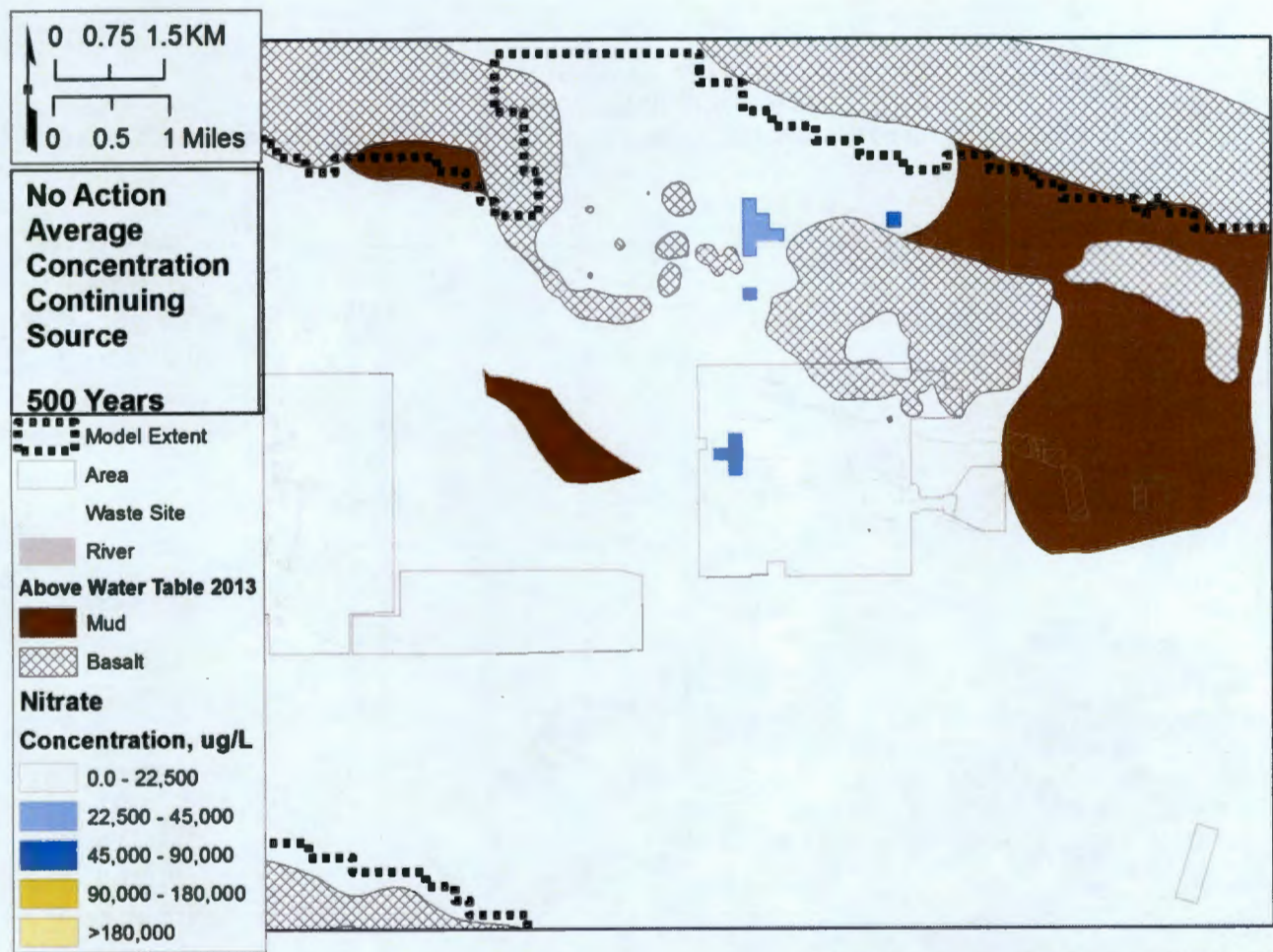
P2RGWM_no3_100.png (DoubleFigure_P2RGWM.mxd)

Figure B-327 - Plan view contours of the nitrate plume at simulation time 100 years based on the continuing source simulation using average concentration initial conditions



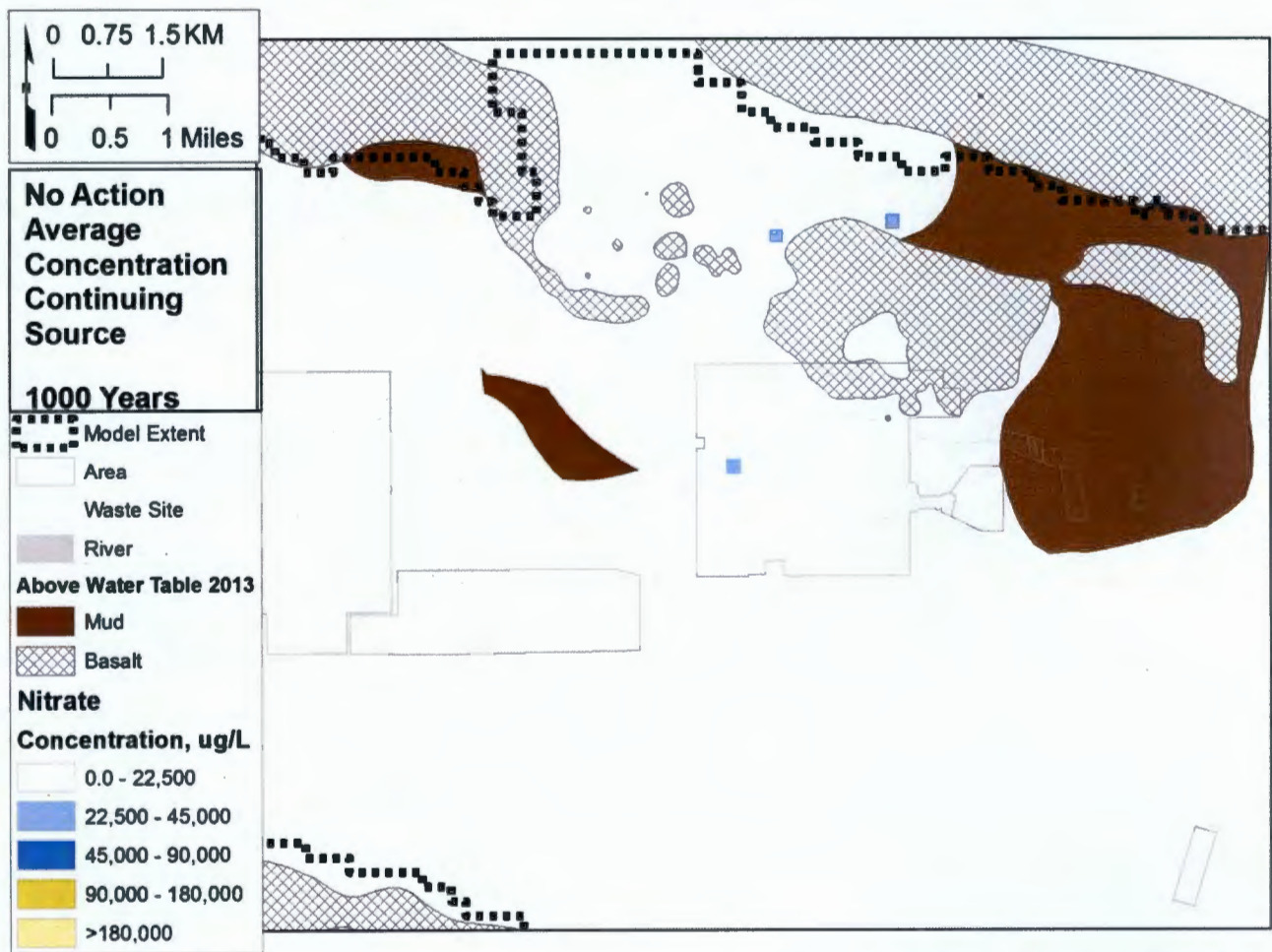
P2RGWM_no3_200.png (DoubleFigure_P2RGWM.mxd)

Figure B-328 - Plan view contours of the nitrate plume at simulation time 200 years based on the continuing source simulation using average concentration initial conditions



P2RGWM_no3_500.png (DoubleFigure_P2RGWM.mxd)

Figure B-329 - Plan view contours of the nitrate plume at simulation time 500 years based on the continuing source simulation using average concentration initial conditions



P2RGWM_no3_1000.png (DoubleFigure_P2RGWM.mxd)

Figure B-330 - Plan view contours of the nitrate plume at simulation time 1000 years based on the continuing source simulation using average concentration initial conditions

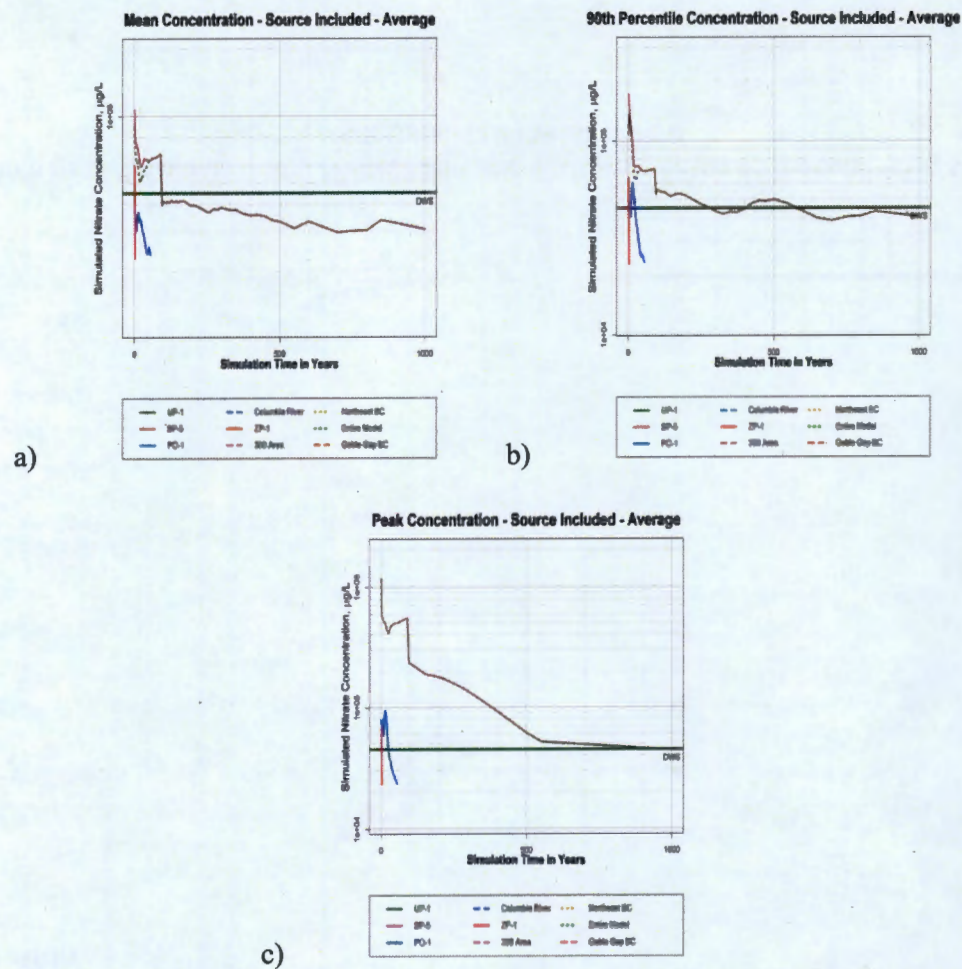


Figure B-331 - Statistical summary of simulated concentration within subregions of the model domain for the nitrate plume for the continuing source simulation using average concentration initial conditions.

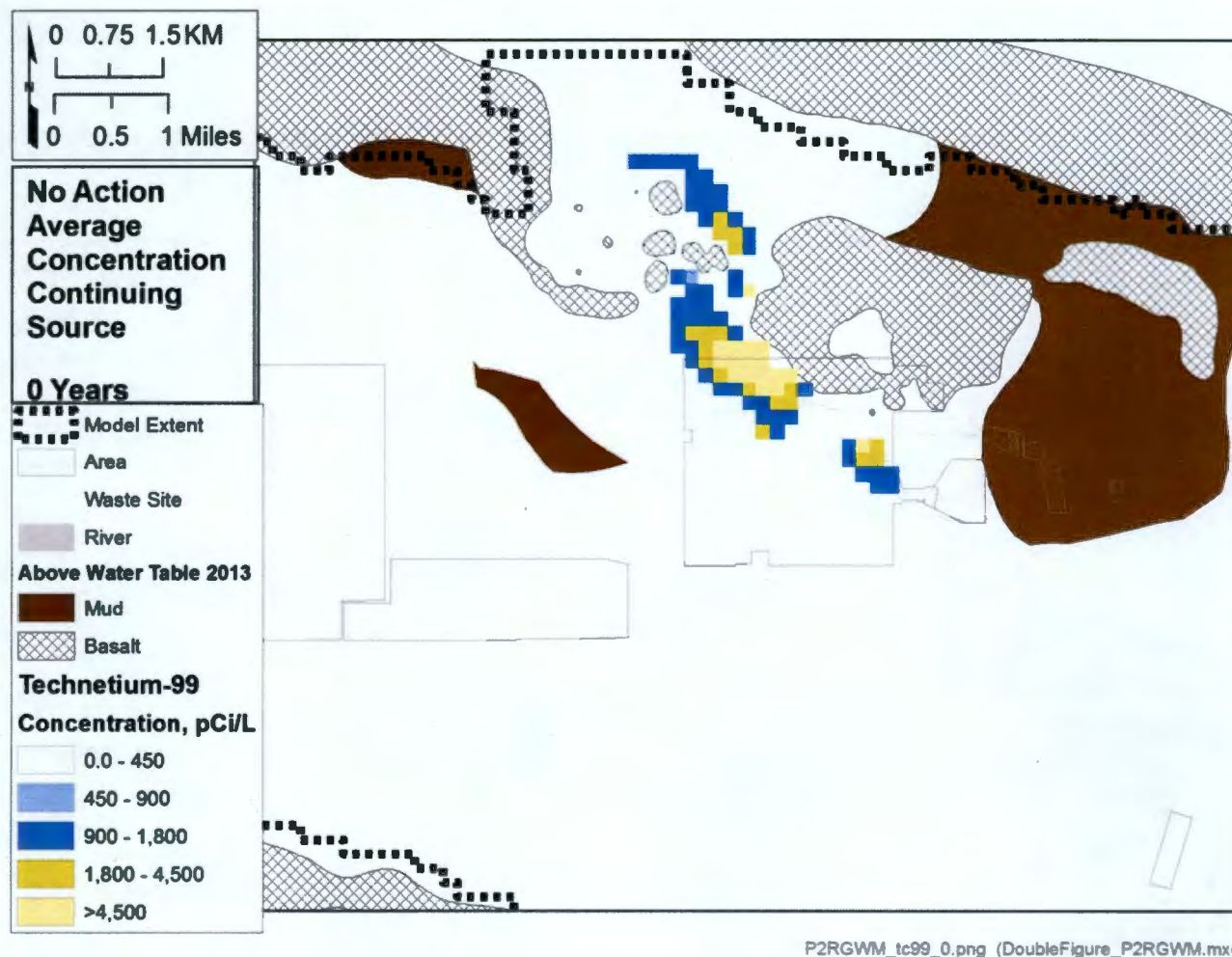
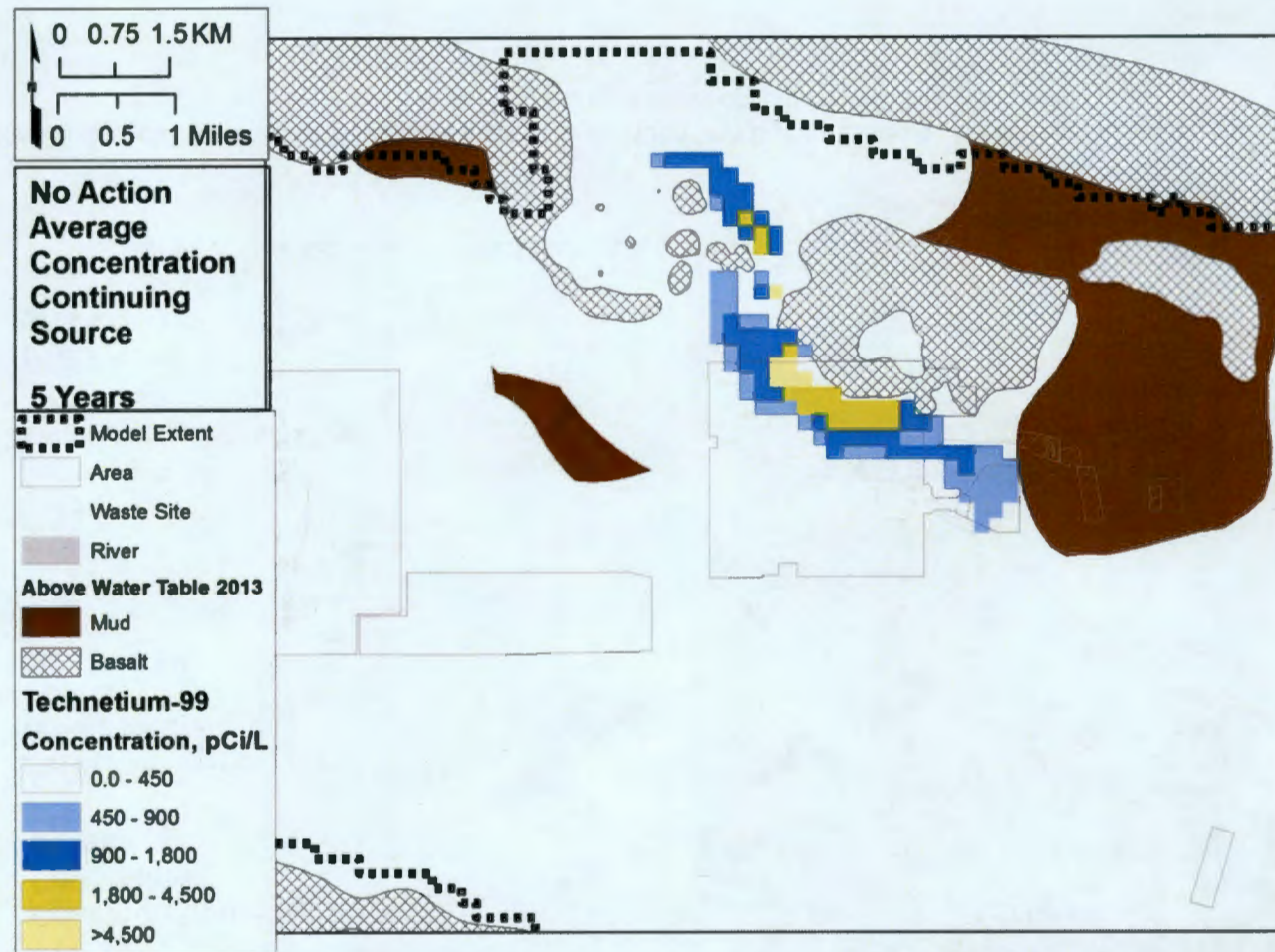


Figure B-332 - Plan view contours of the technetium-99 plume at simulation time 0 years based on the continuing source simulation using average concentration initial conditions



P2RGWM_tc99_5.png (DoubleFigure_P2RGWM.mxd)

Figure B-333 - Plan view contours of the technetium-99 plume at simulation time 5 years based on the continuing source simulation using average concentration initial conditions

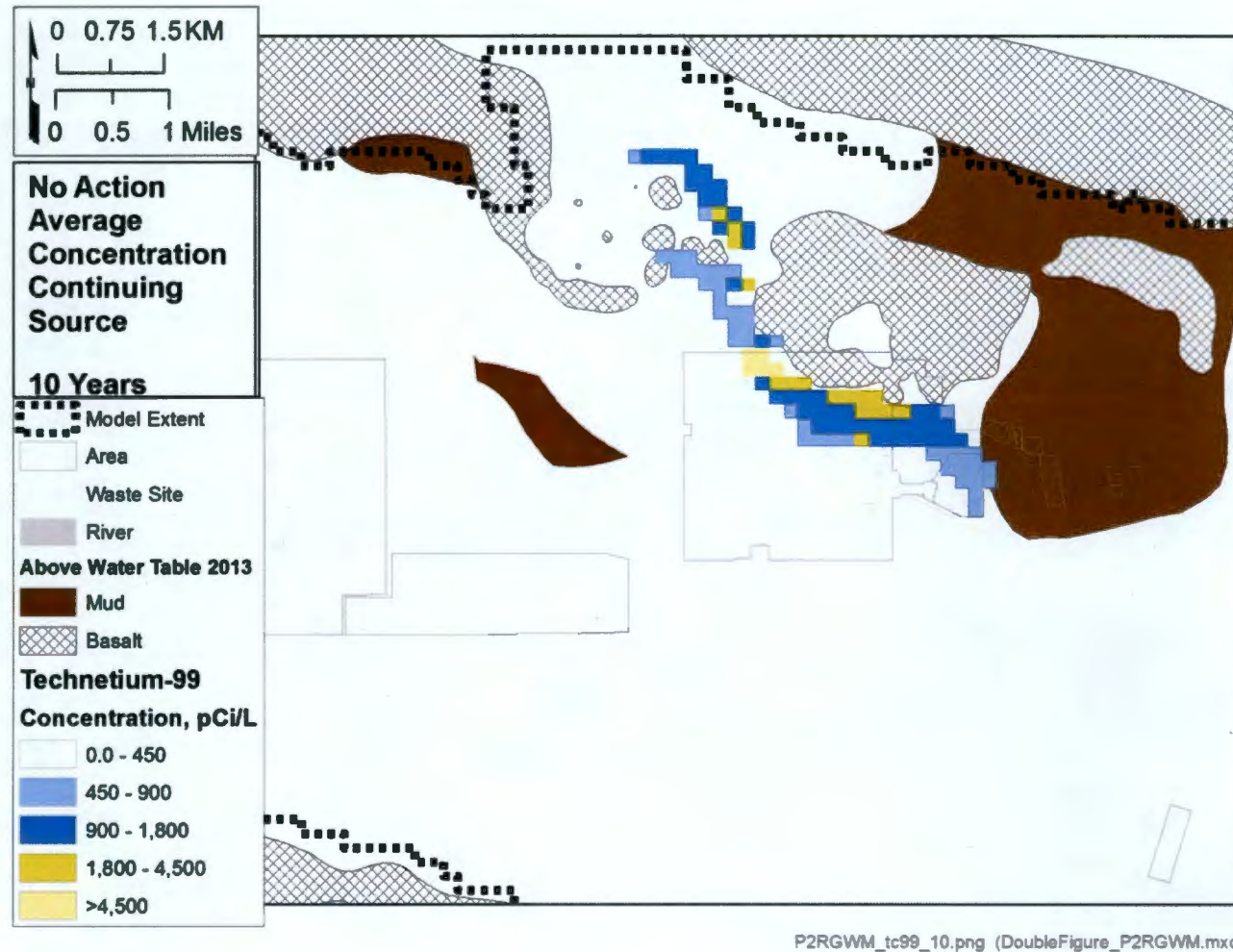


Figure B-334 - Plan view contours of the technetium-99 plume at simulation time 10 years based on the continuing source simulation using average concentration initial conditions

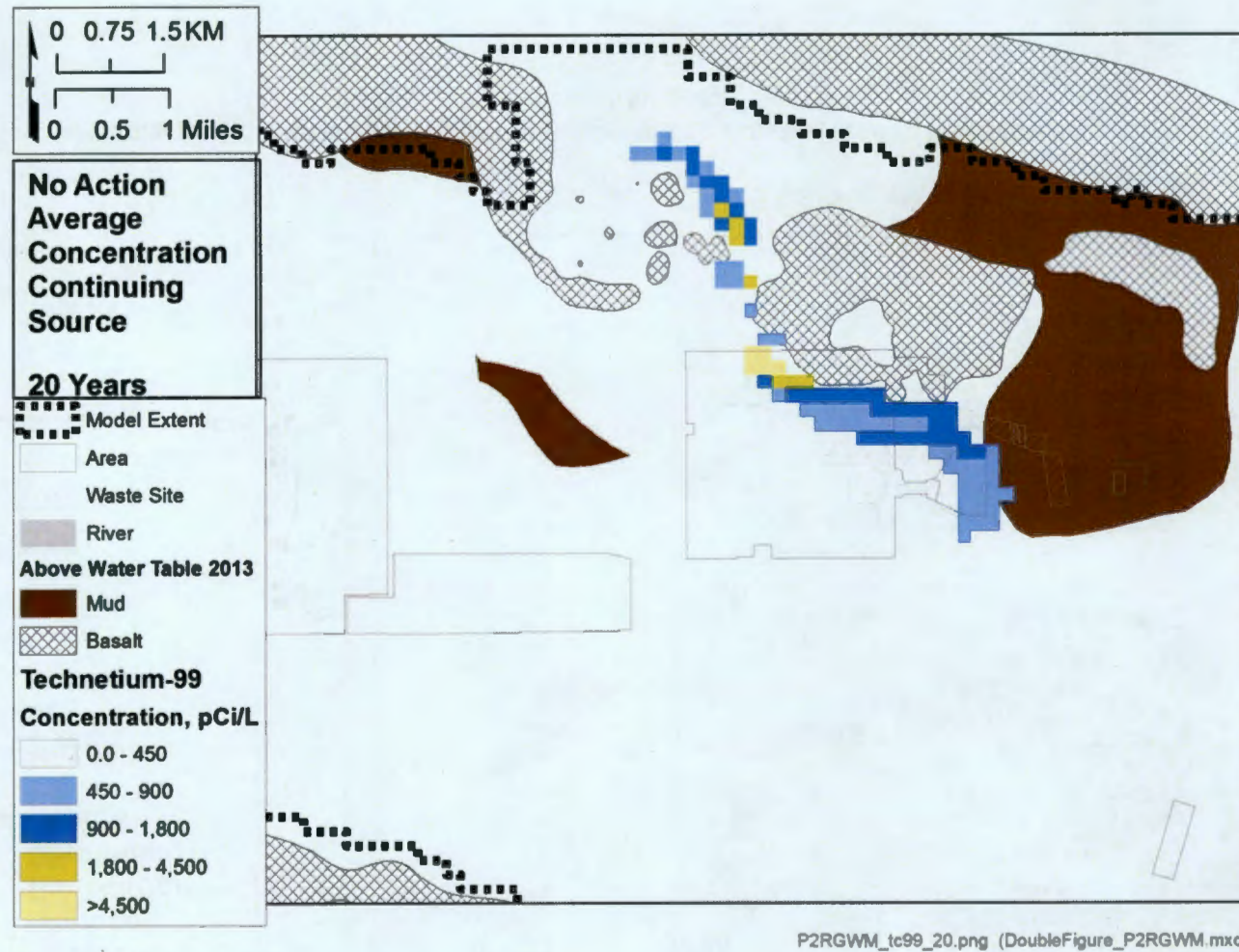


Figure B-335 - Plan view contours of the technetium-99 plume at simulation time 20 years based on the continuing source simulation using average concentration initial conditions

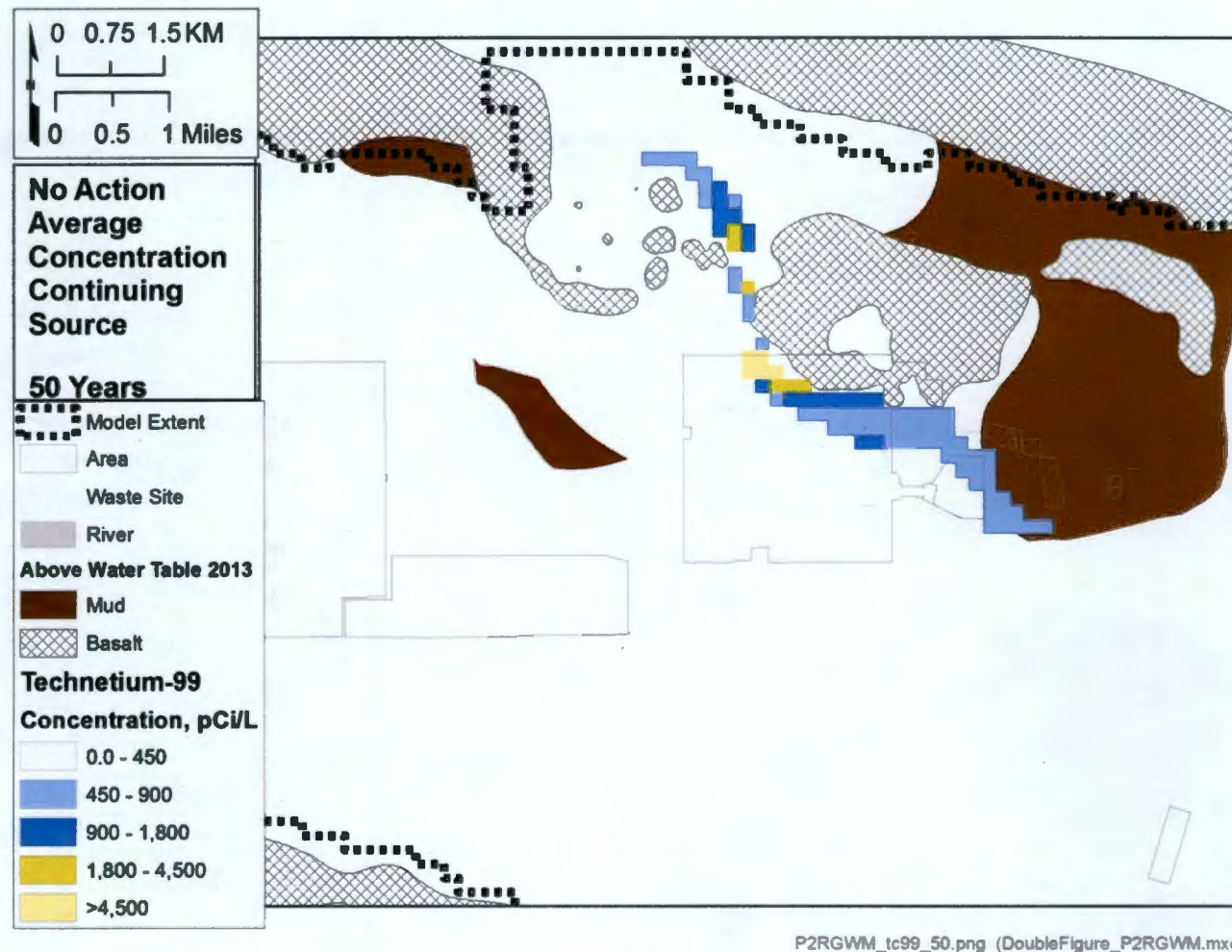


Figure B-336 - Plan view contours of the technetium-99 plume at simulation time 50 years based on the continuing source simulation using average concentration initial conditions

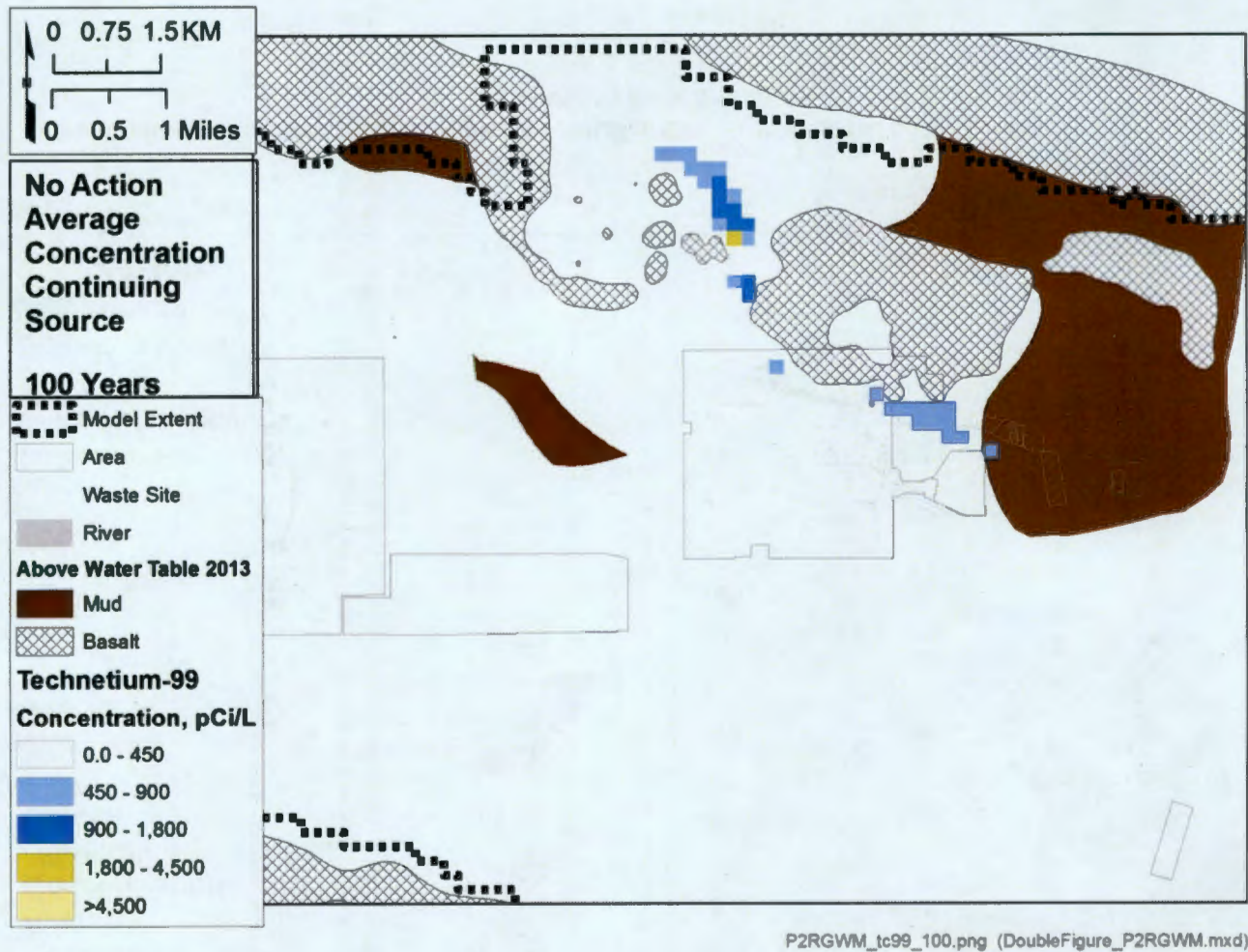
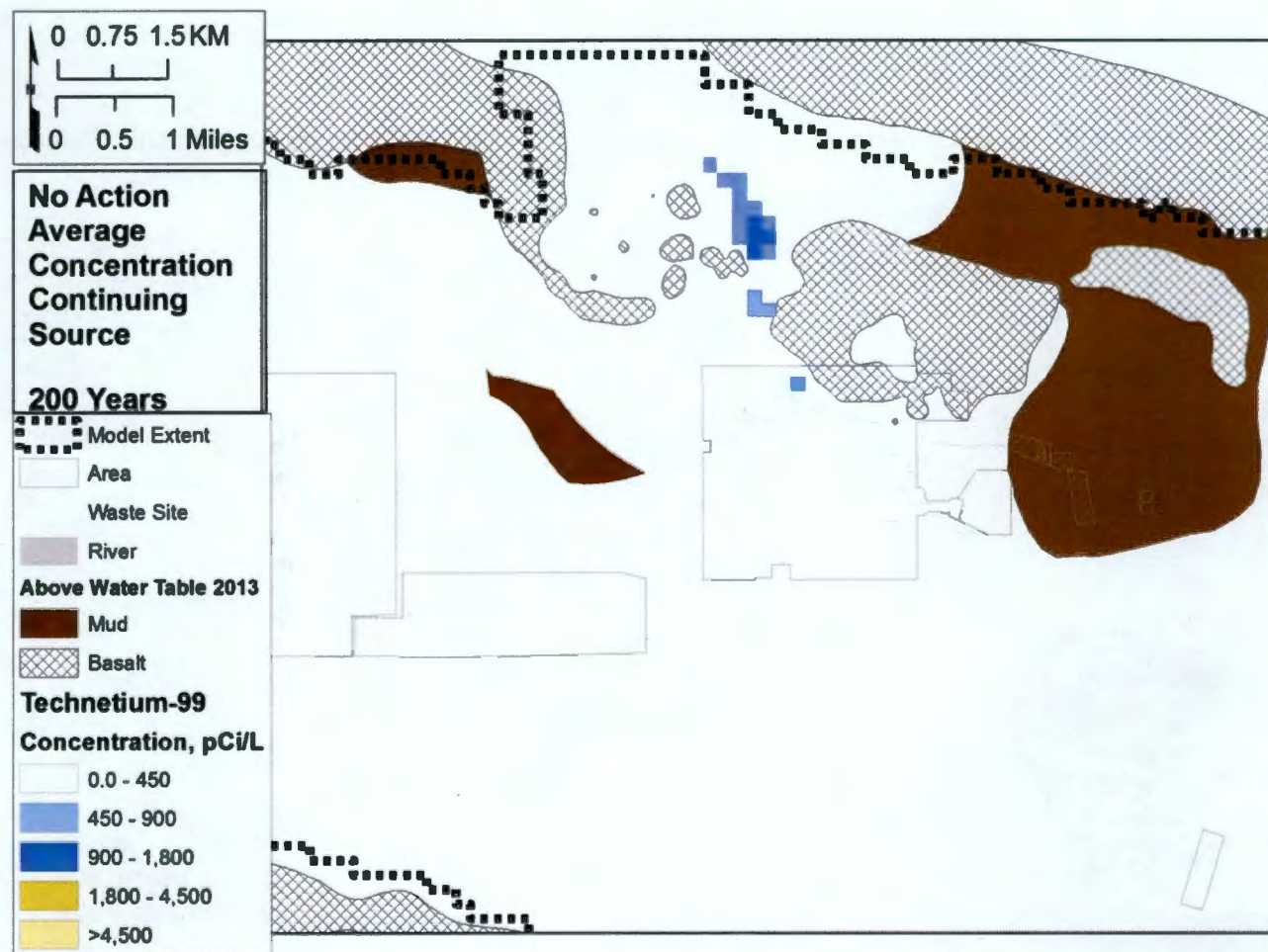
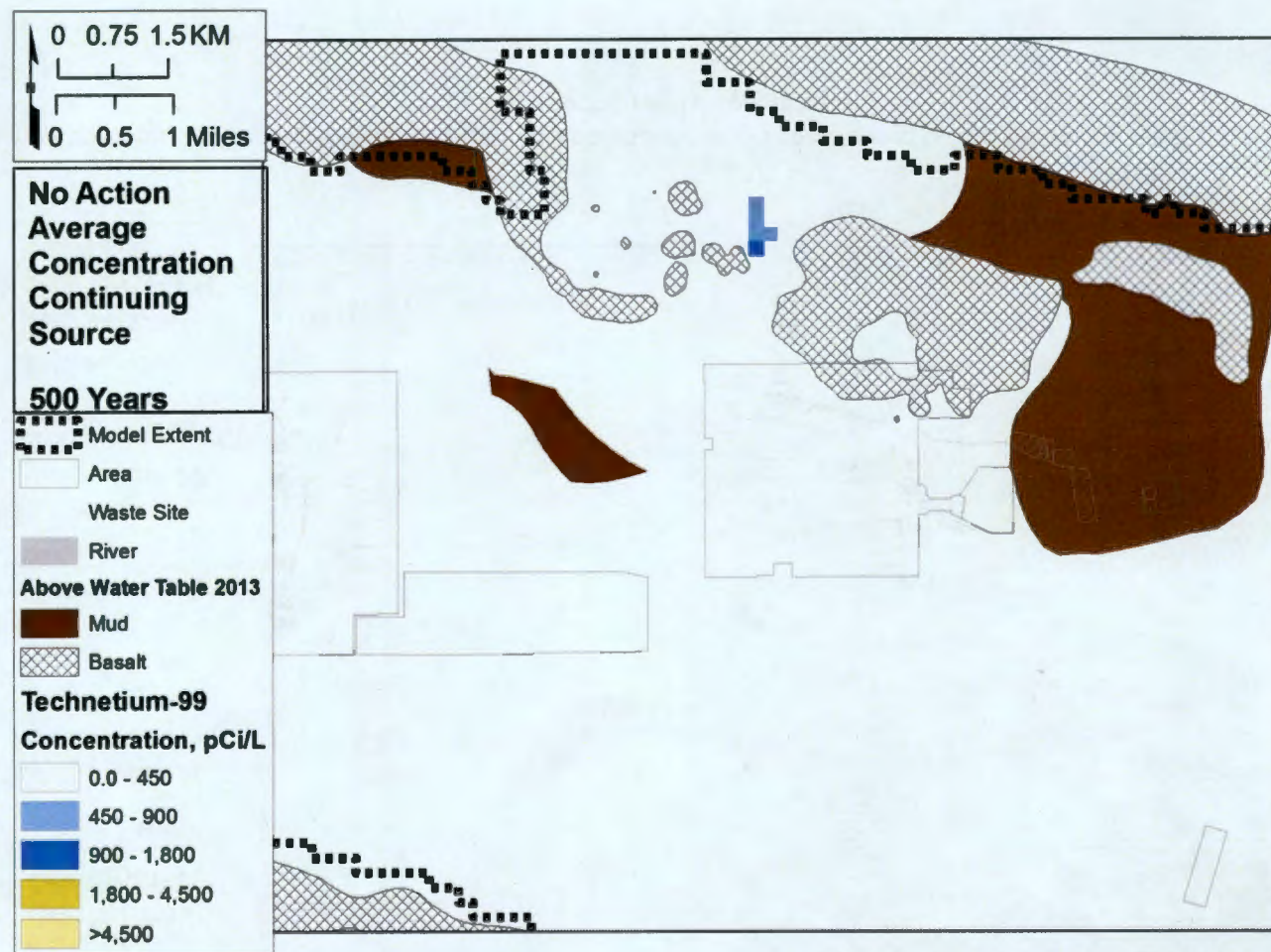


Figure B-337 - Plan view contours of the technetium-99 plume at simulation time 100 years based on the continuing source simulation using average concentration initial conditions



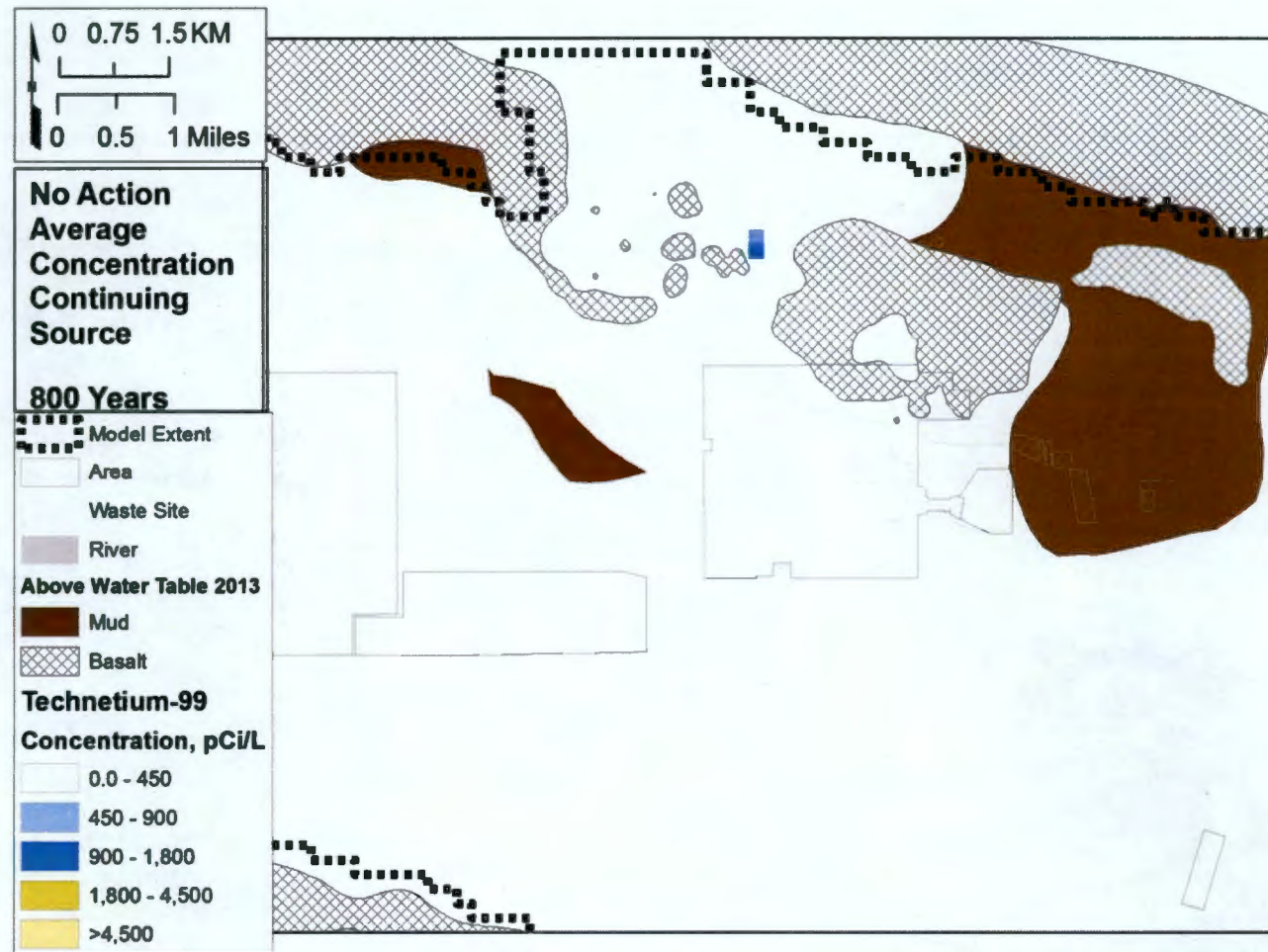
P2RGWM_tc99_200.png (DoubleFigure_P2RGWM.mxd)

Figure B-338 - Plan view contours of the technetium-99 plume at simulation time 200 years based on the continuing source simulation using average concentration initial conditions



P2RGWM_tc99_500.png (DoubleFigure_P2RGWM.mxd)

Figure B-339 - Plan view contours of the technetium-99 plume at simulation time 500 years based on the continuing source simulation using average concentration initial conditions



P2RGWM_tc99_800.png (DoubleFigure_P2RGWM.mxd)

Figure B-340 - Plan view contours of the technetium-99 plume at simulation time 800 years based on the continuing source simulation using average concentration initial conditions

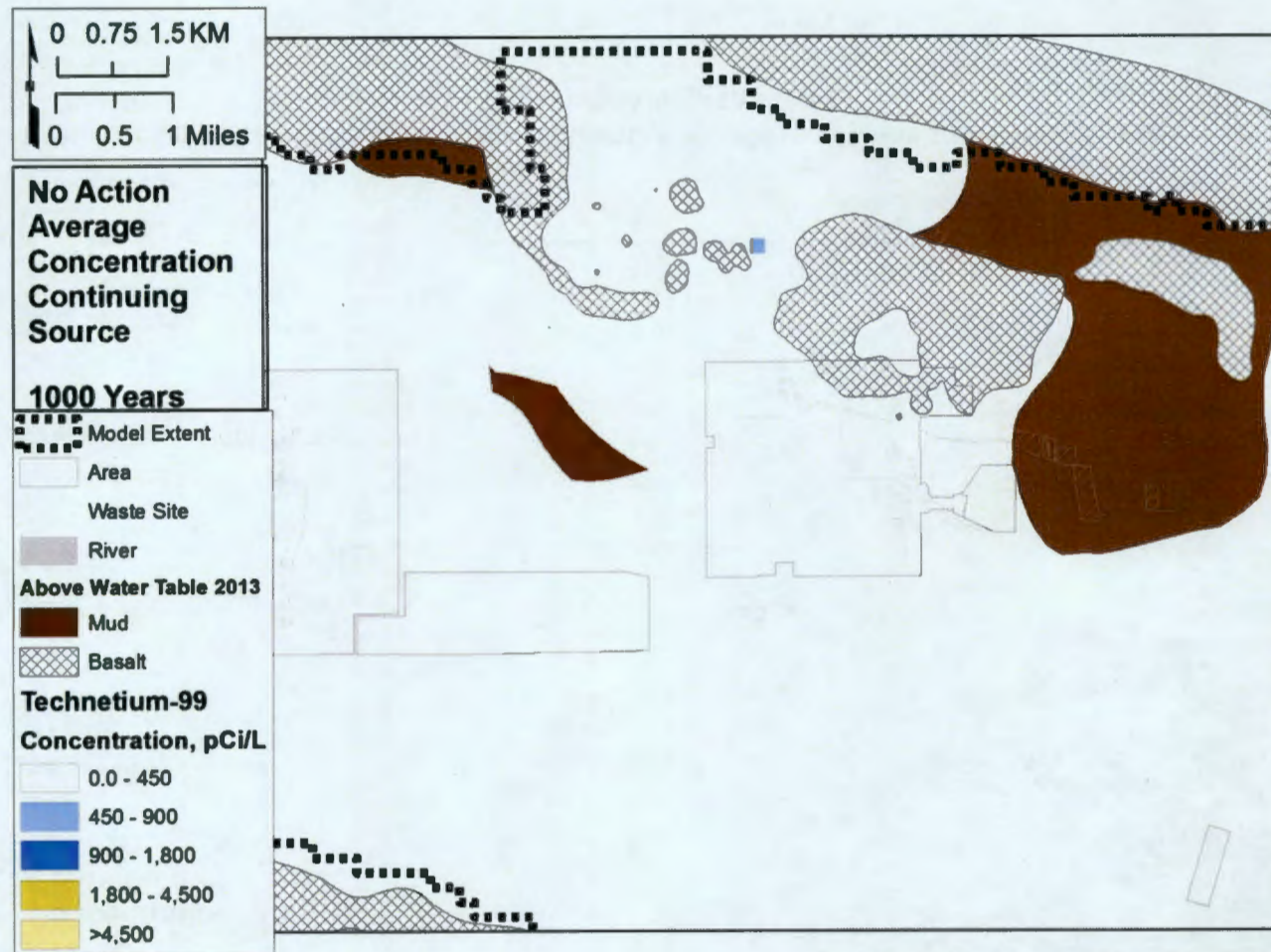


Figure B-341 - Plan view contours of the technetium-99 plume at simulation time 1000 years based on the continuing source simulation using average concentration initial conditions

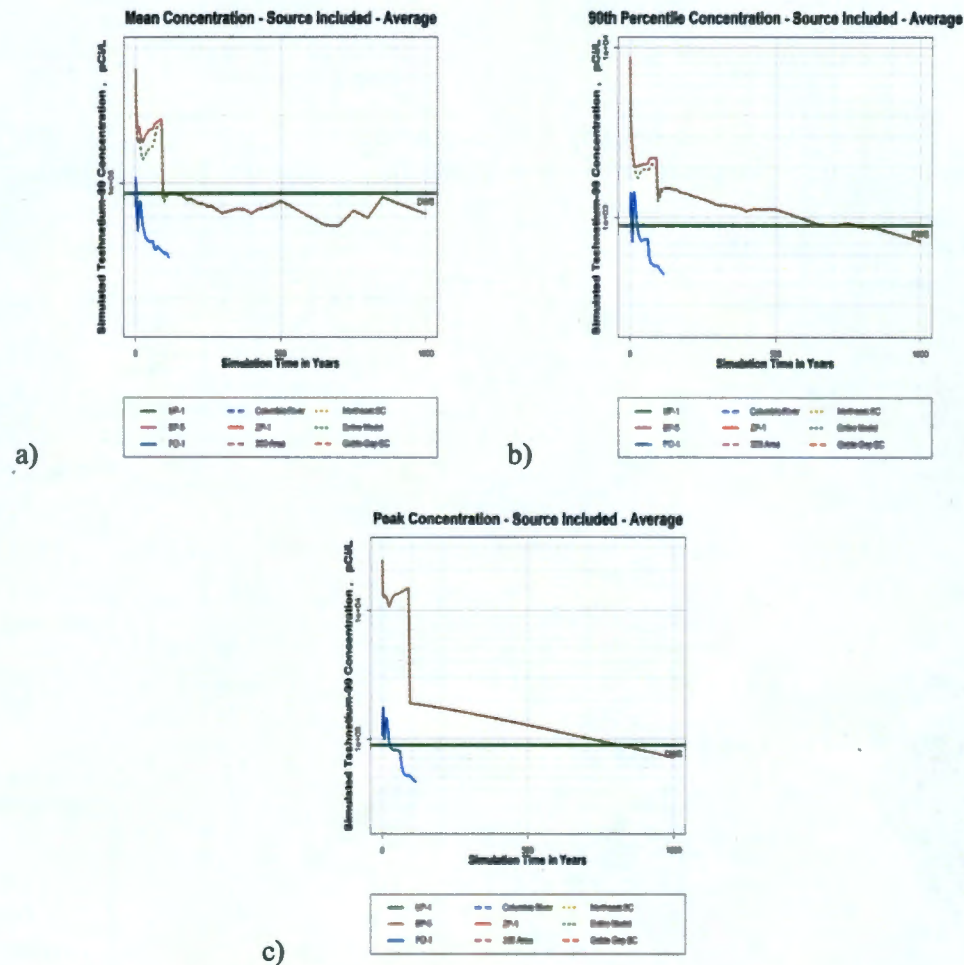
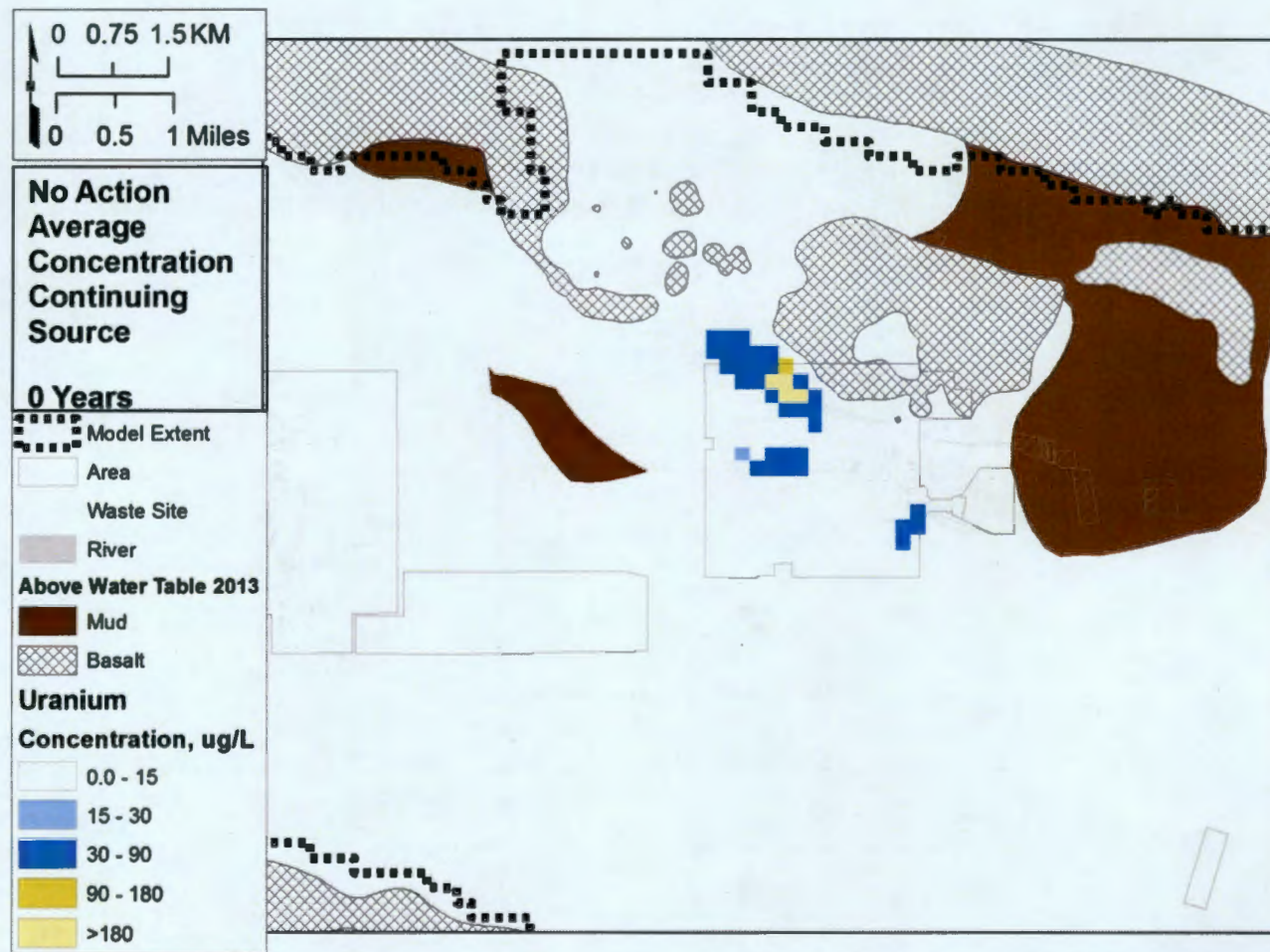
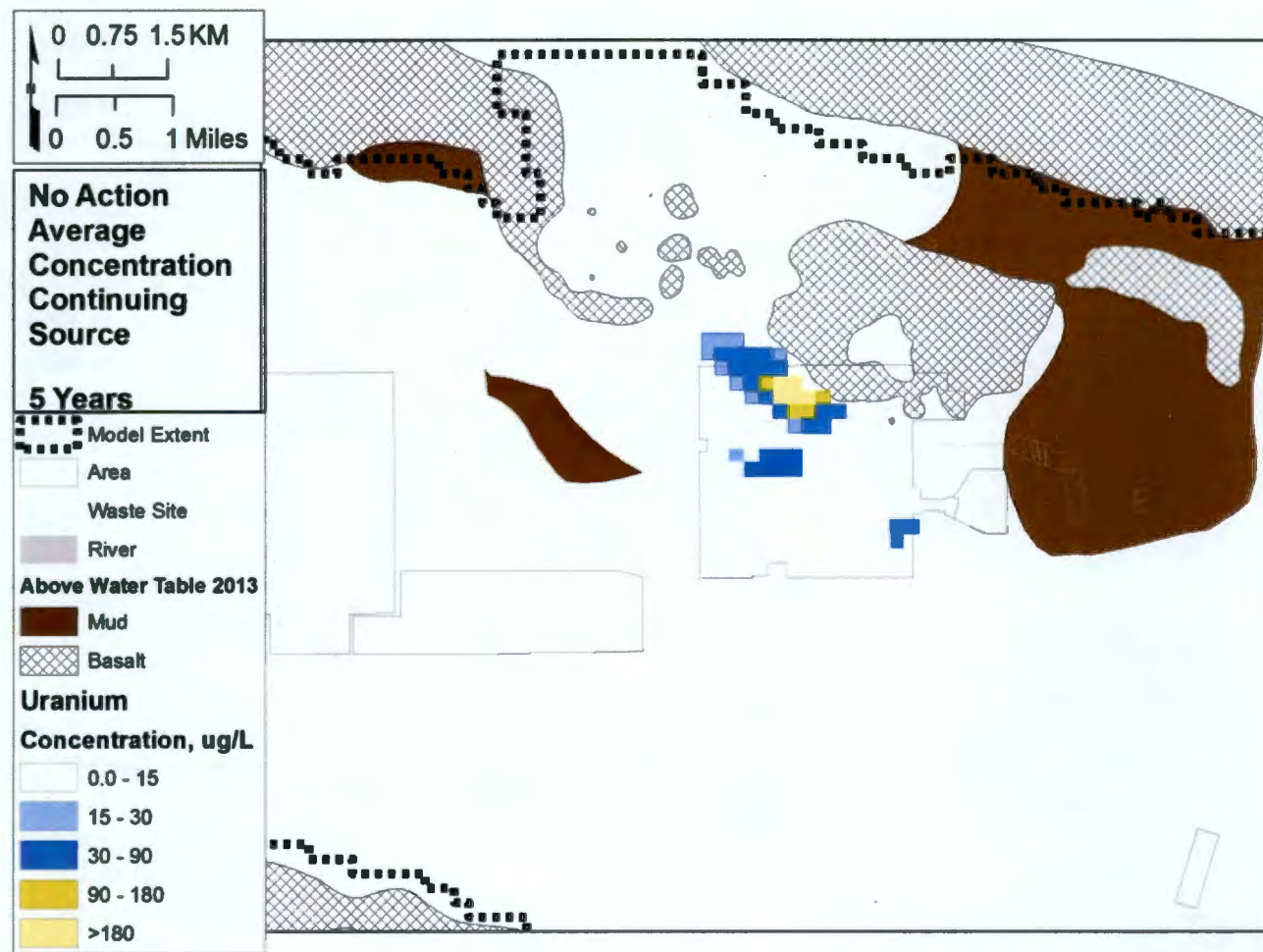


Figure B-342 - Statistical summary of simulated concentration within subregions of the model domain for the technetium-99 plume for the continuing source simulation using average concentration initial conditions.



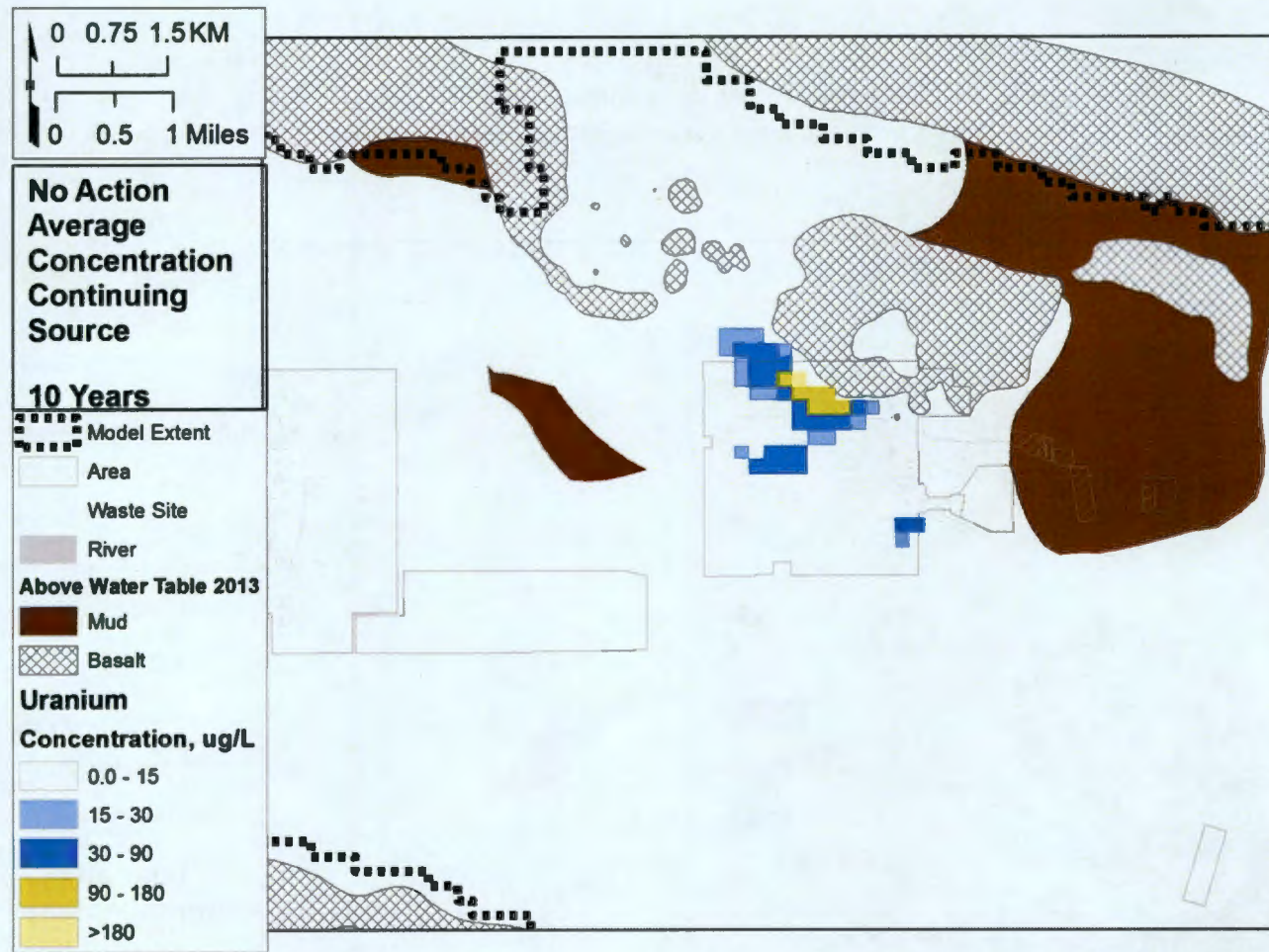
P2RGWM_u238_0.png (DoubleFigure_P2RGWM.mxd)

Figure B-343 - Plan view contours of the uranium plume at simulation time 0 years based on the continuing source simulation using average concentration initial conditions



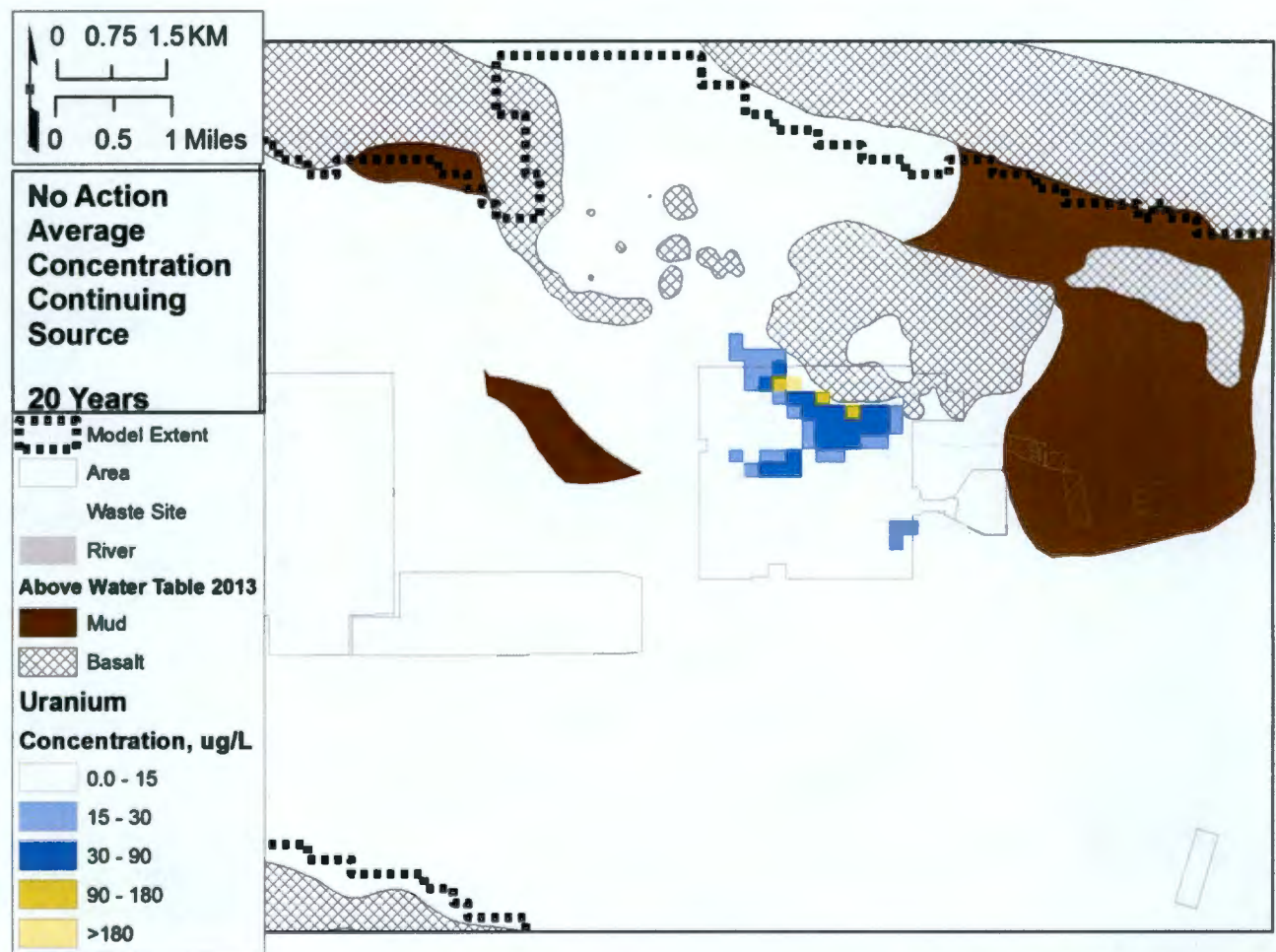
P2RGWM_u238_5.png (DoubleFigure_P2RGWM mxd)

Figure B-344 - Plan view contours of the uranium plume at simulation time 5 years based on the continuing source simulation using average concentration initial conditions



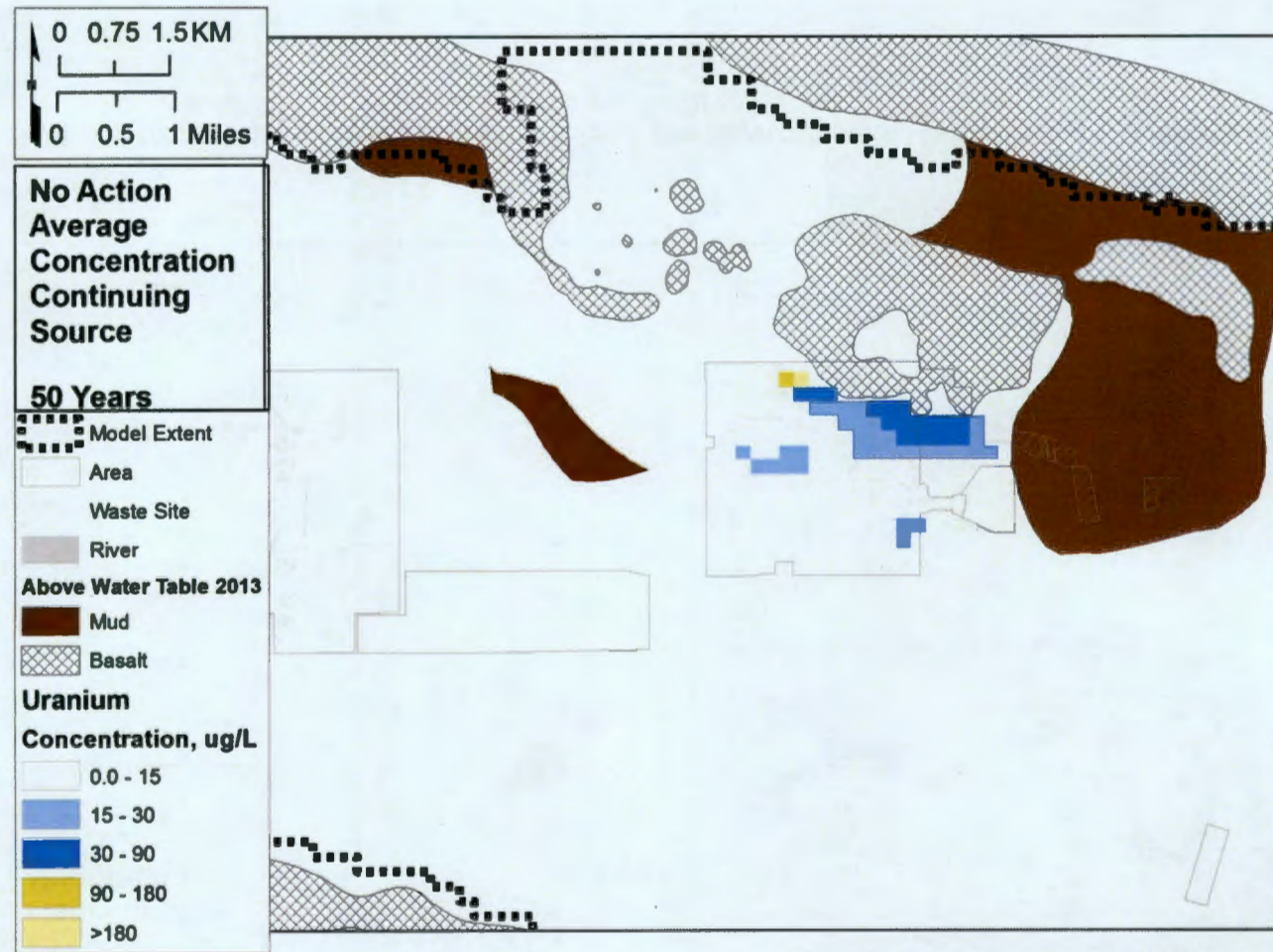
P2RGWM_u238_10.png (DoubleFigure_P2RGWM.mxd)

Figure B-345 - Plan view contours of the uranium plume at simulation time 10 years based on the continuing source simulation using average concentration initial conditions



P2RGWM_u238_20.png (DoubleFigure_P2RGWM.mxd)

Figure B-346 - Plan view contours of the uranium plume at simulation time 20 years based on the continuing source simulation using average concentration initial conditions



P2RGWM_u238_50.png (DoubleFigure_P2RGWM.mxd)

Figure B-347 - Plan view contours of the uranium plume at simulation time 50 years based on the continuing source simulation using average concentration initial conditions

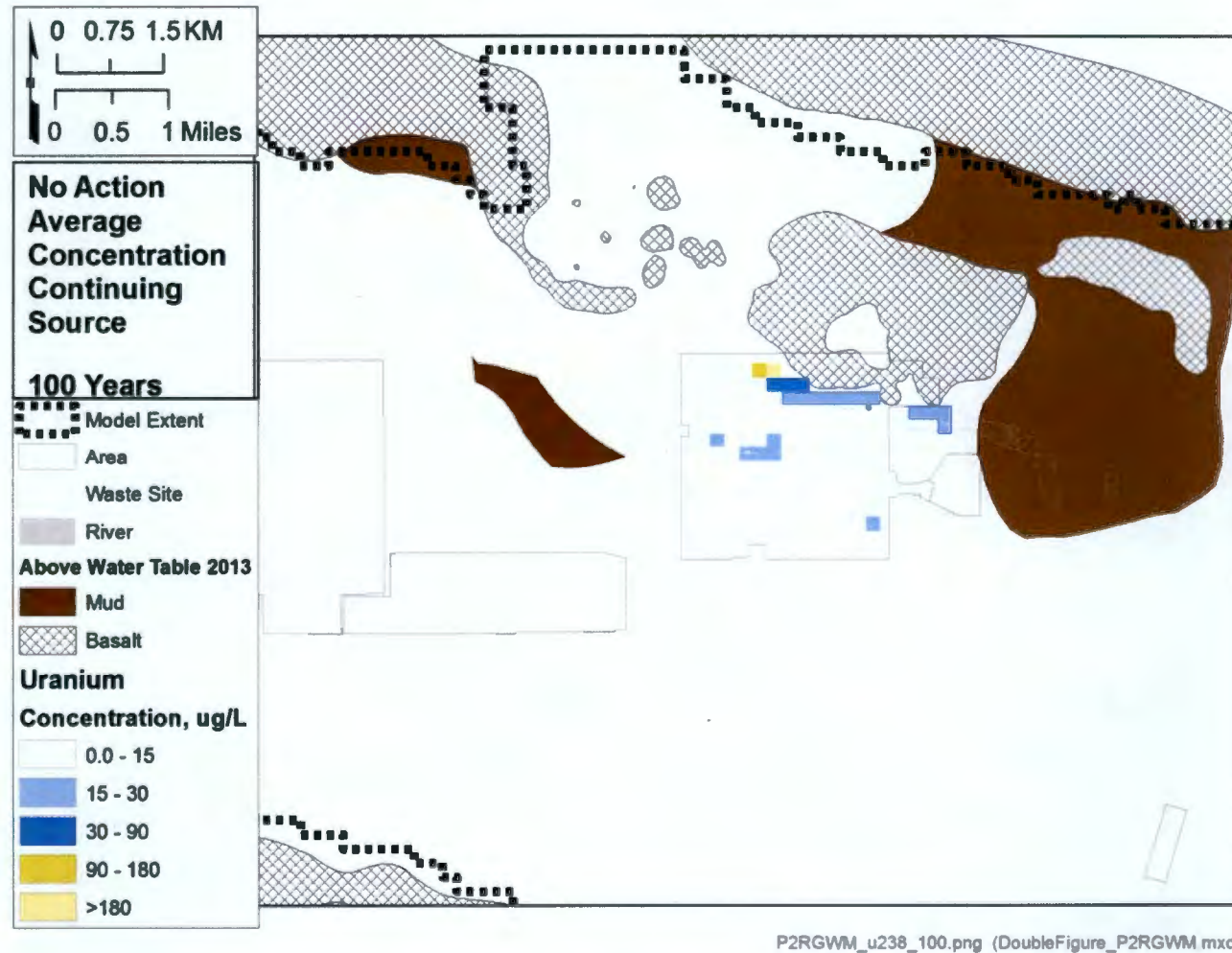
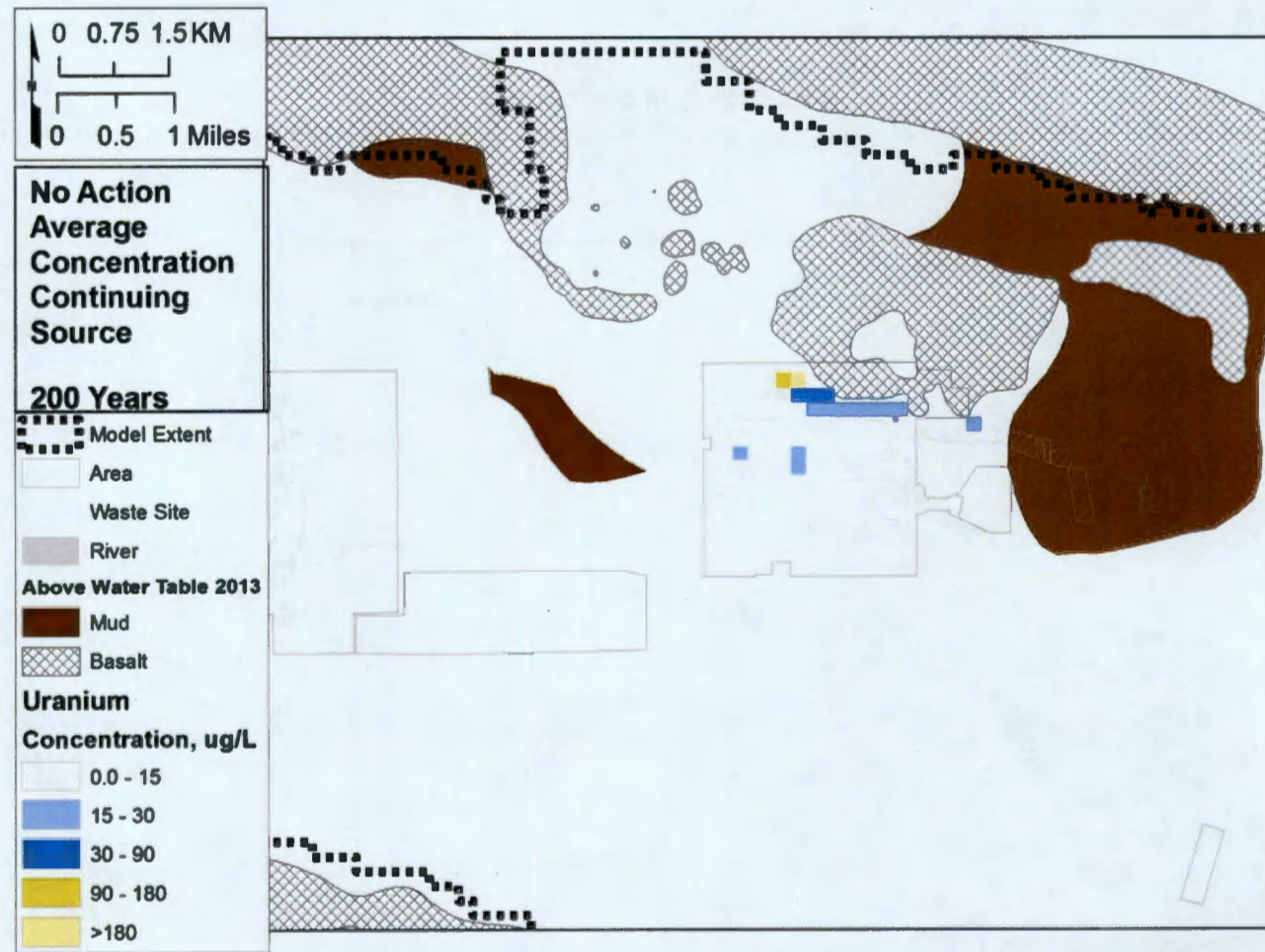
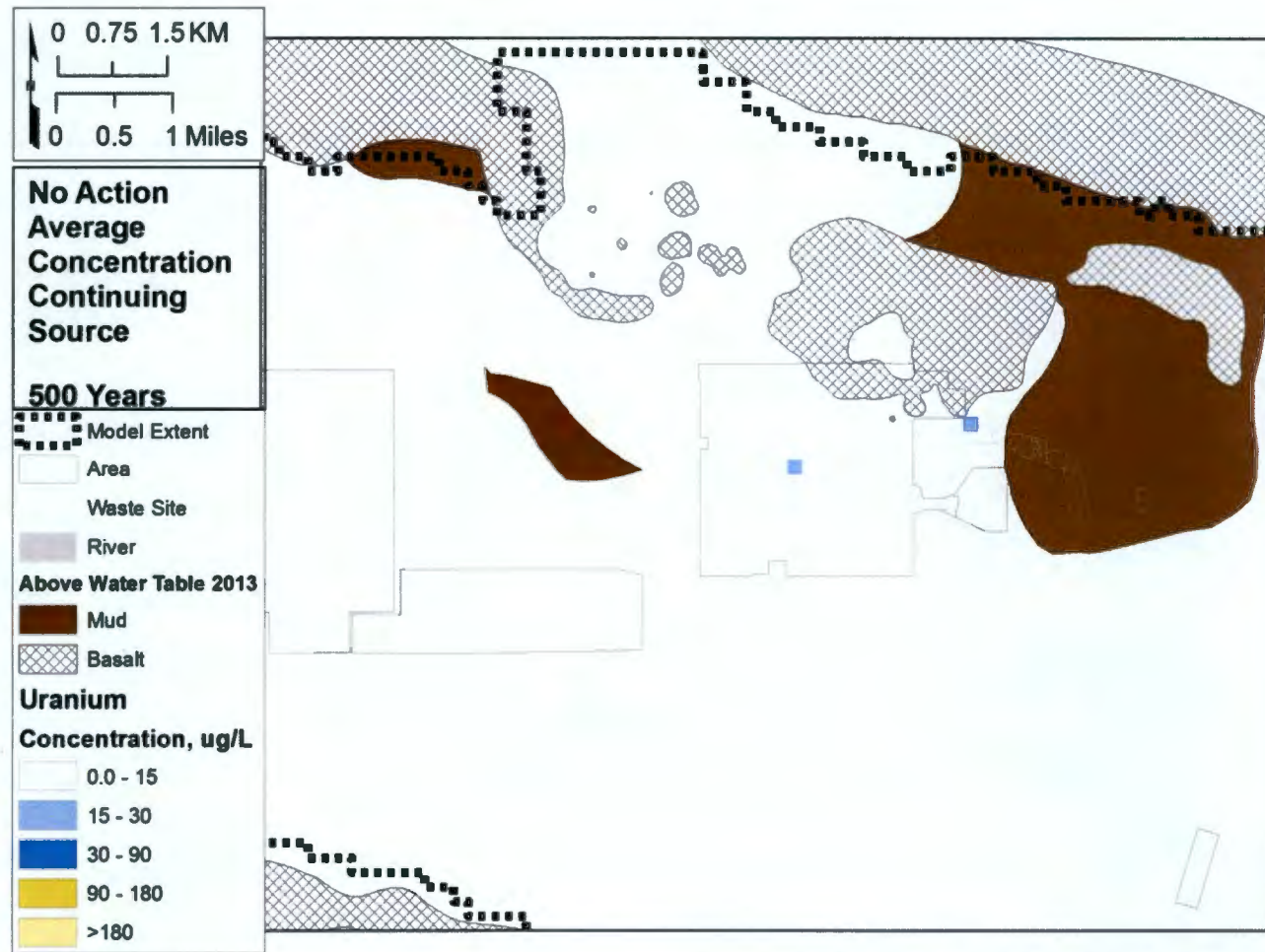


Figure B-348 - Plan view contours of the uranium plume at simulation time 100 years based on the continuing source simulation using average concentration initial conditions



P2RGWM_u238_200.png (DoubleFigure_P2RGWM.mxd)

Figure B-349 - Plan view contours of the uranium plume at simulation time 200 years based on the continuing source simulation using average concentration initial conditions



P2RGWM_u238_500.png (DoubleFigure_P2RGWM.mxd)

Figure B-350 - Plan view contours of the uranium plume at simulation time 500 years based on the continuing source simulation using average concentration initial conditions

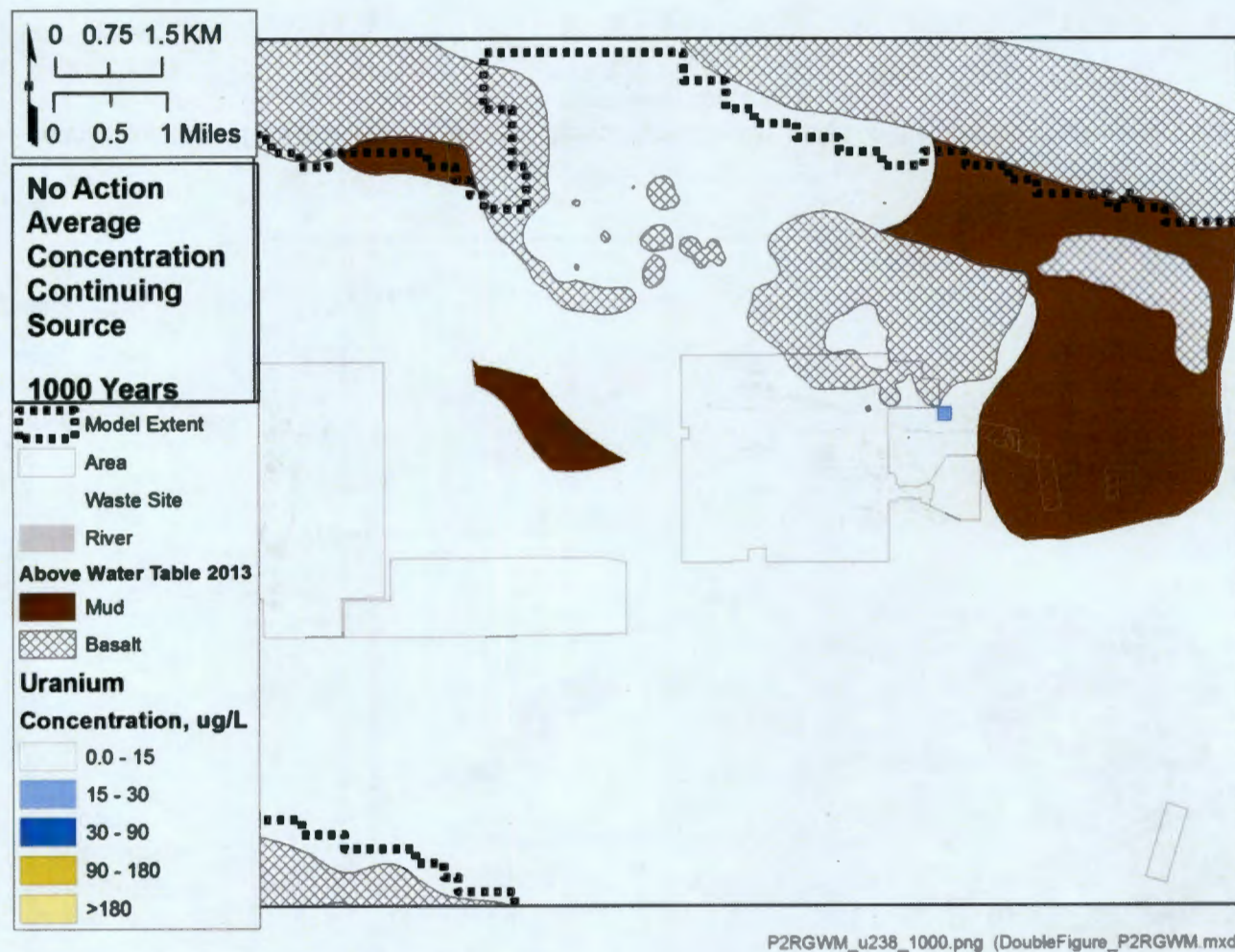


Figure B-351 - Plan view contours of the uranium plume at simulation time 1000 years based on the continuing source simulation using average concentration initial conditions

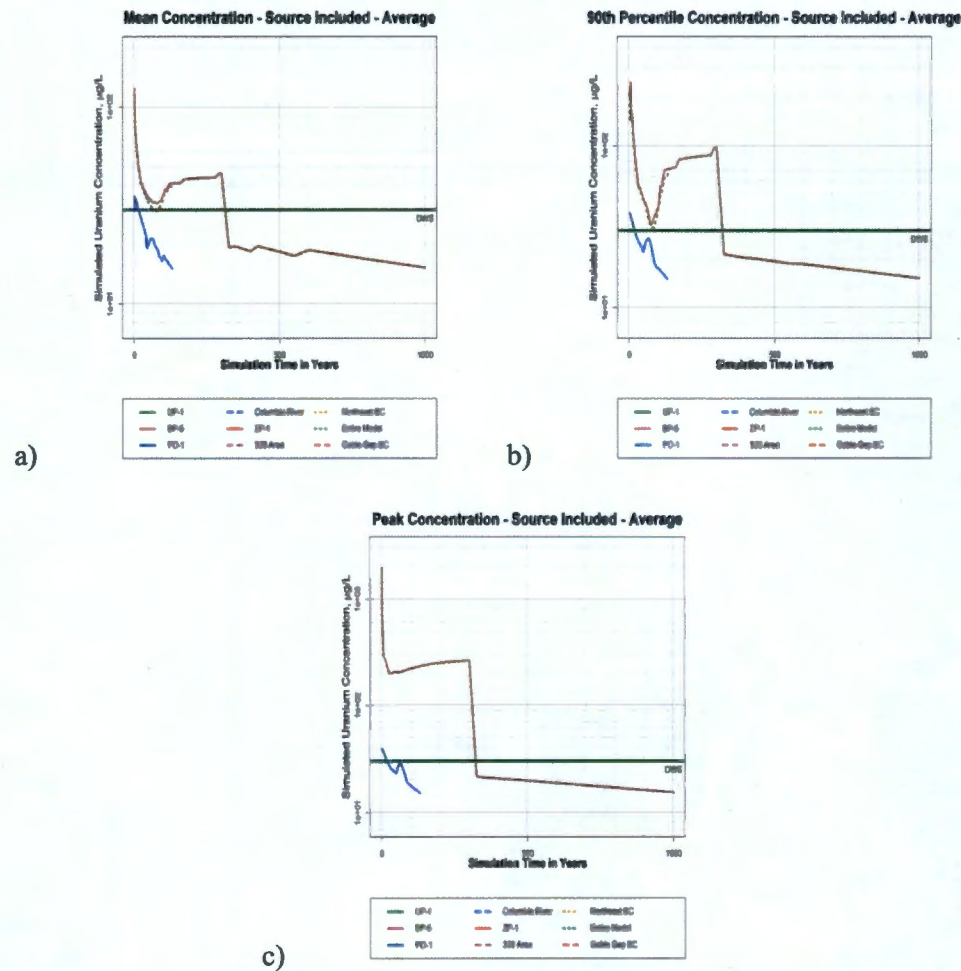
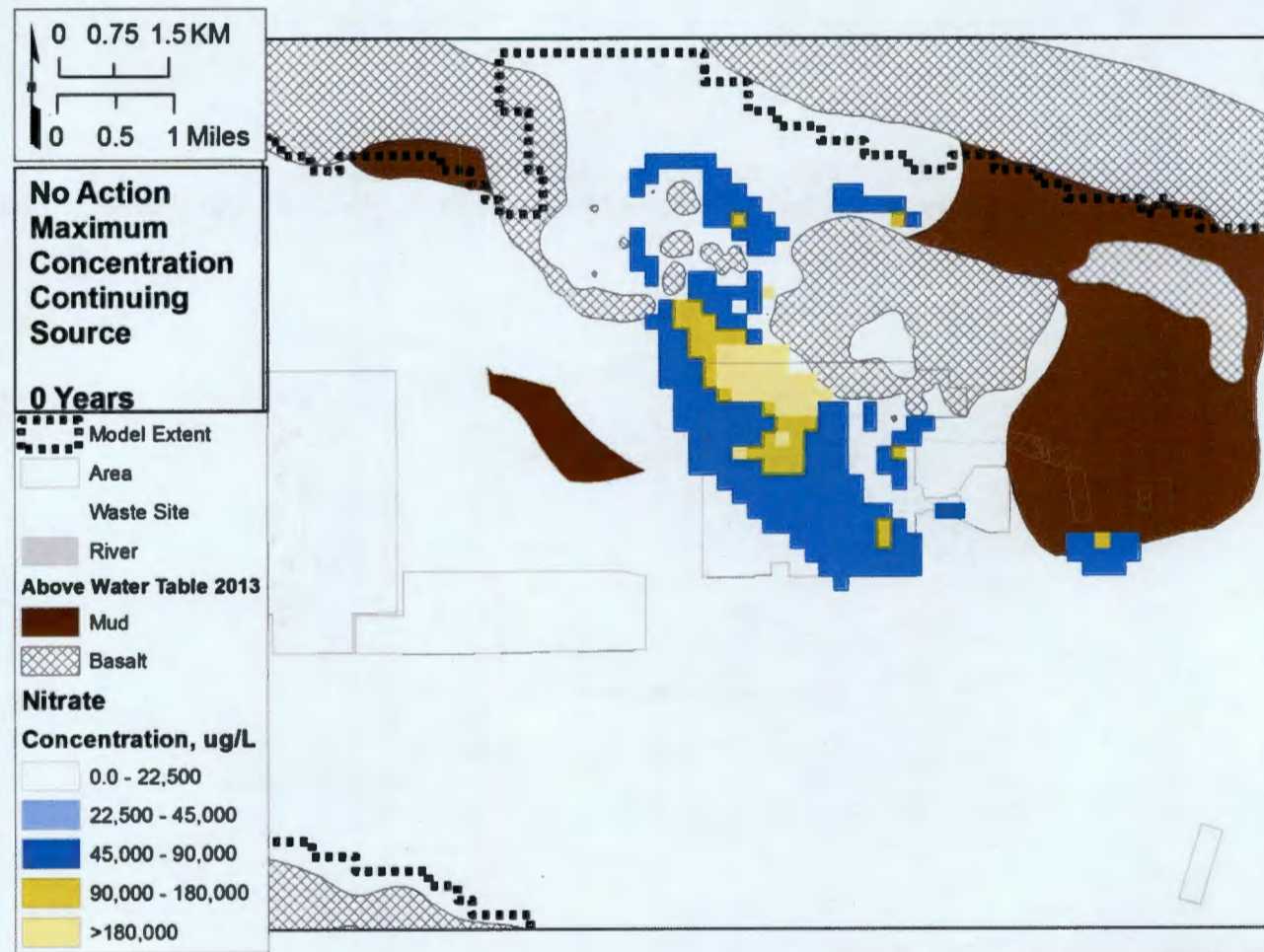
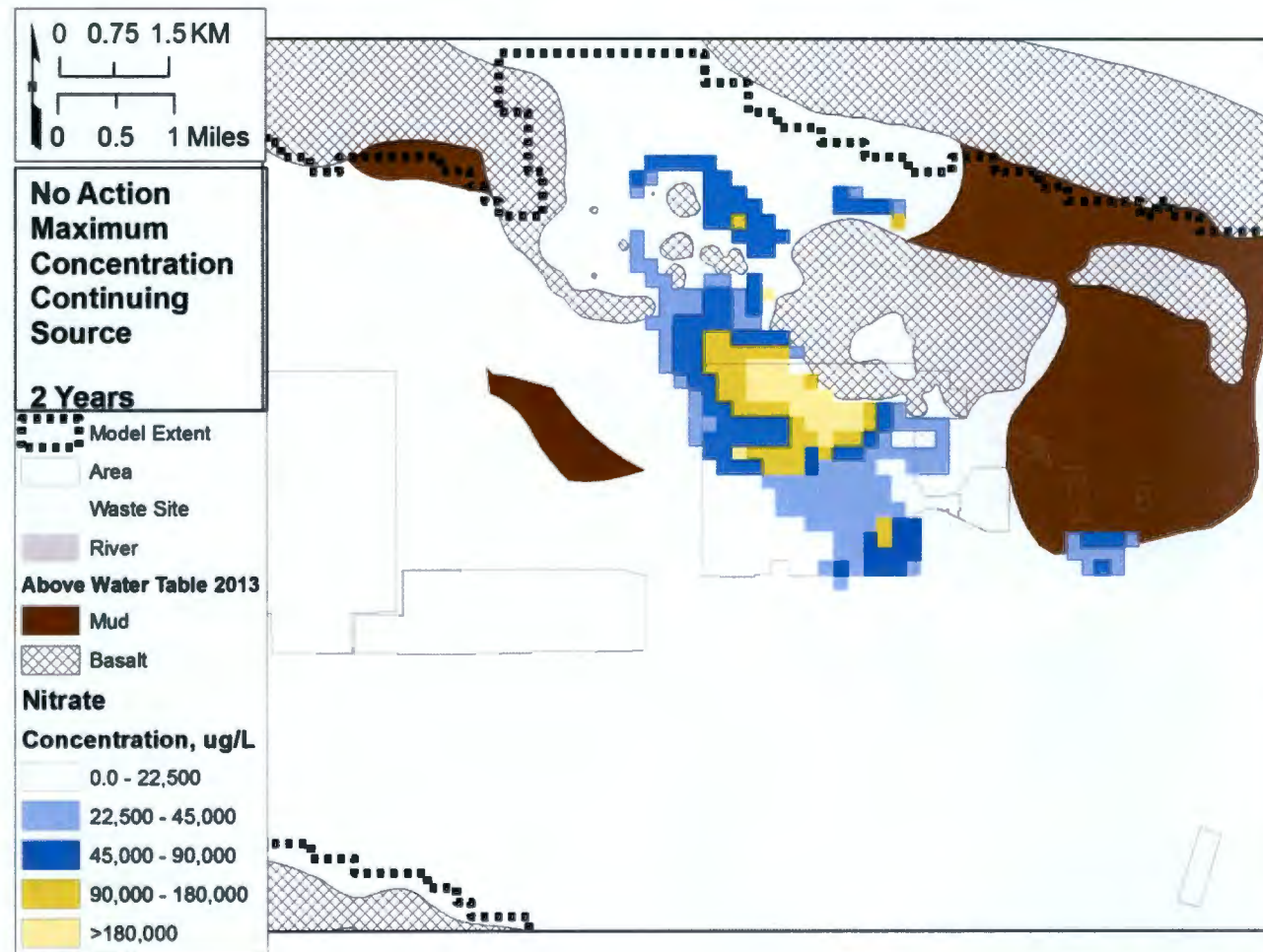


Figure B-352 - Statistical summary of simulated concentration within subregions of the model domain for the uranium plume for the continuing source simulation using average concentration initial conditions.



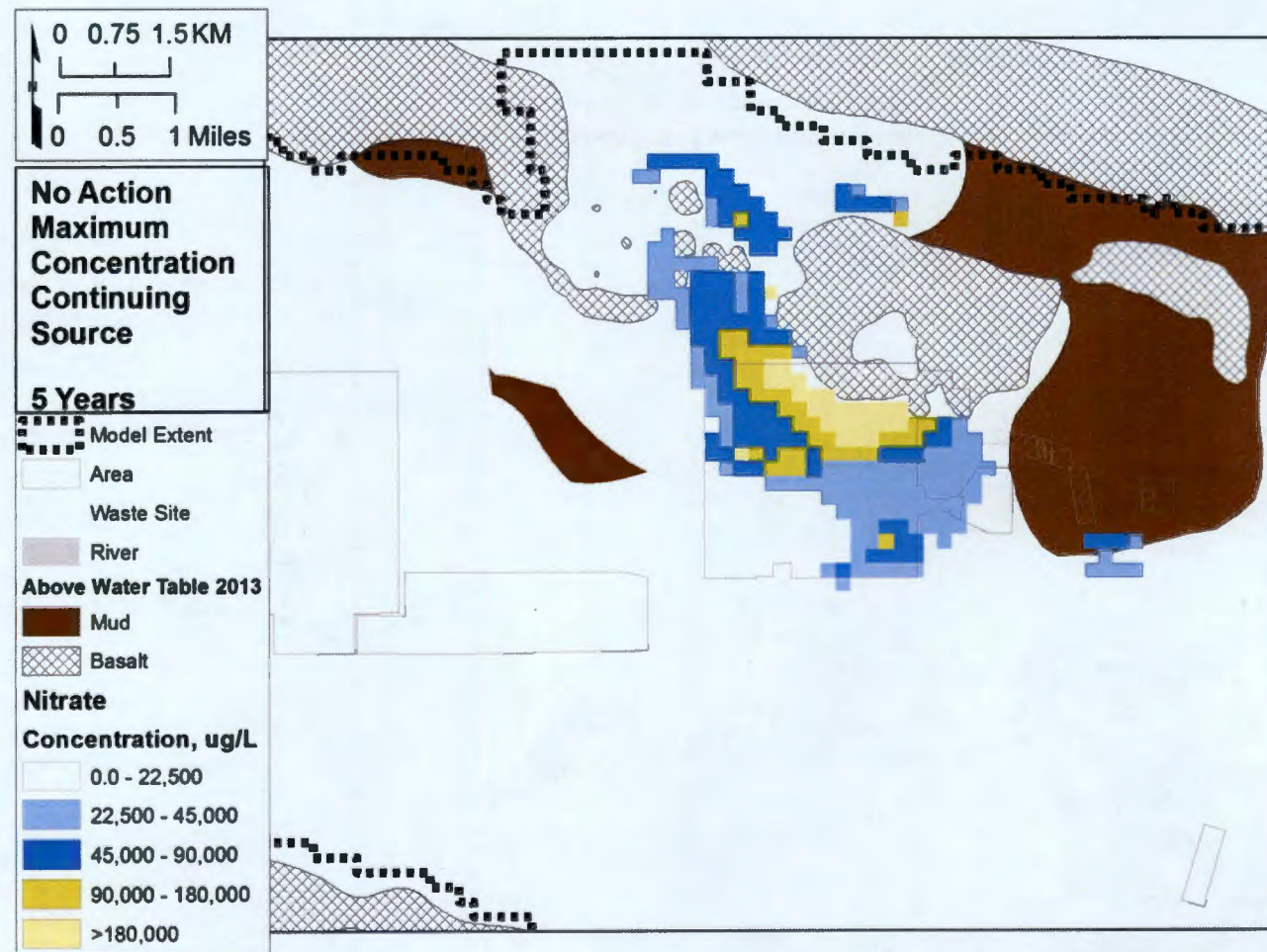
P2RGWM_no3_0.png (DoubleFigure_P2RGWM.mxd)

Figure B-353 - Plan view contours of the nitrate plume at simulation time 0 years based on the continuing source simulation using maximum concentration initial conditions



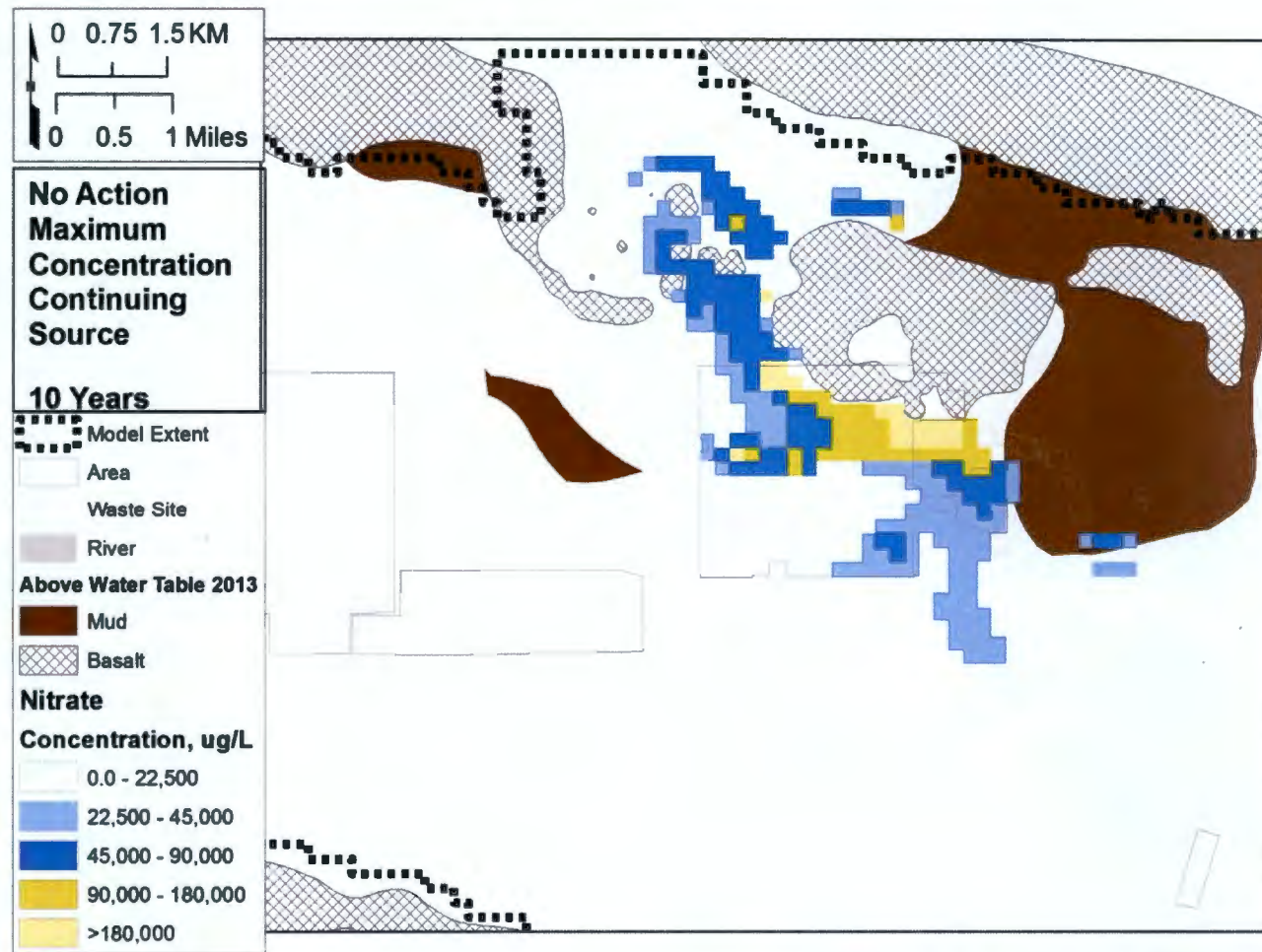
P2RGWM_no3_2.png (DoubleFigure_P2RGWM.mxd)

Figure B-354 - Plan view contours of the nitrate plume at simulation time 2 years based on the continuing source simulation using maximum concentration initial conditions



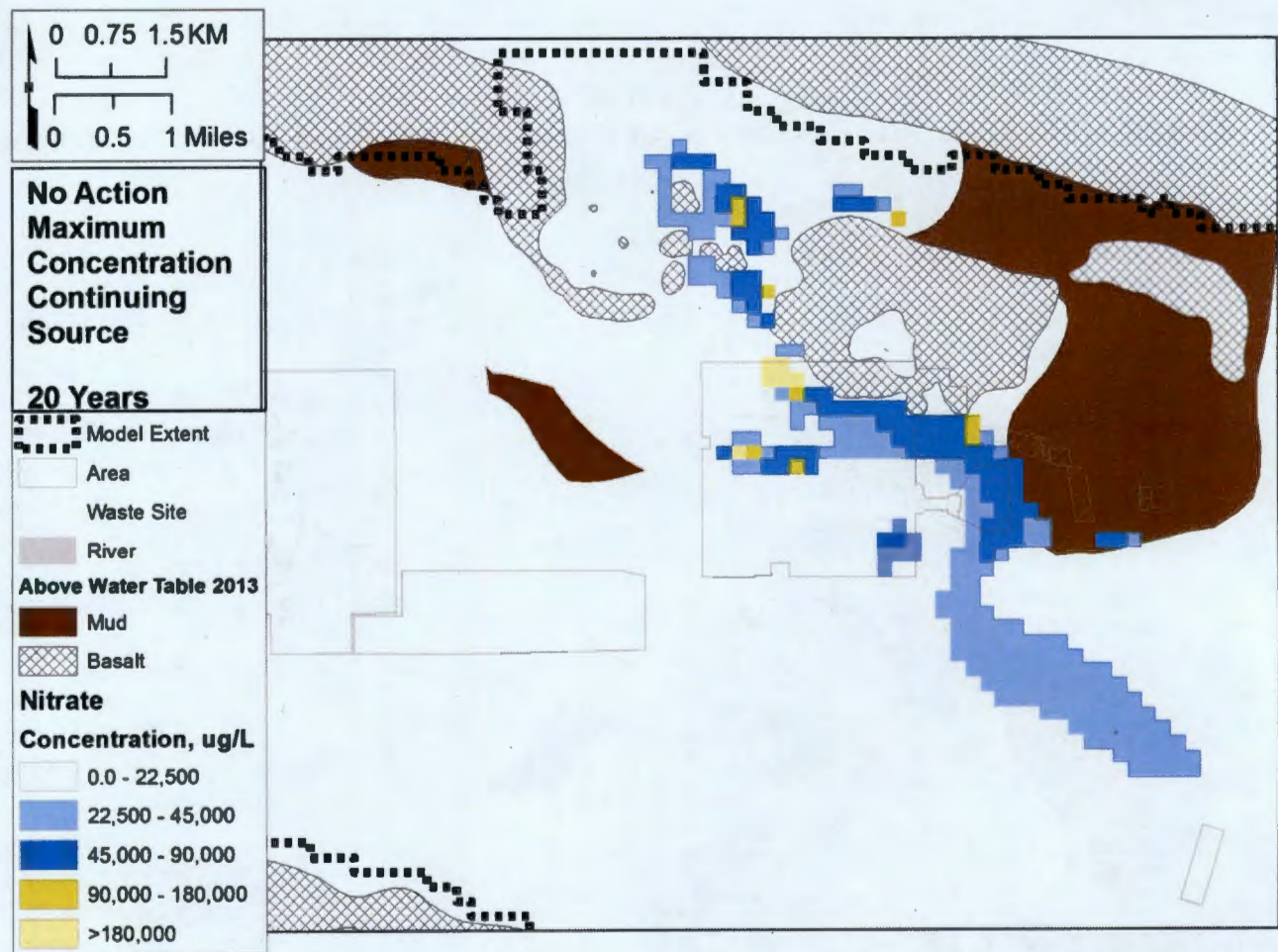
P2RGWM_no3_5.png (DoubleFigure_P2RGWM.mxd)

Figure B-355 - Plan view contours of the nitrate plume at simulation time 5 years based on the continuing source simulation using maximum concentration initial conditions



P2RGWM_no3_10.png (DoubleFigure_P2RGWM.mxd)

Figure B-356 - Plan view contours of the nitrate plume at simulation time 10 years based on the continuing source simulation using maximum concentration initial conditions



P2RGWM_no3_20.png (DoubleFigure_P2RGWM.mxd)

Figure B-357 - Plan view contours of the nitrate plume at simulation time 20 years based on the continuing source simulation using maximum concentration initial conditions

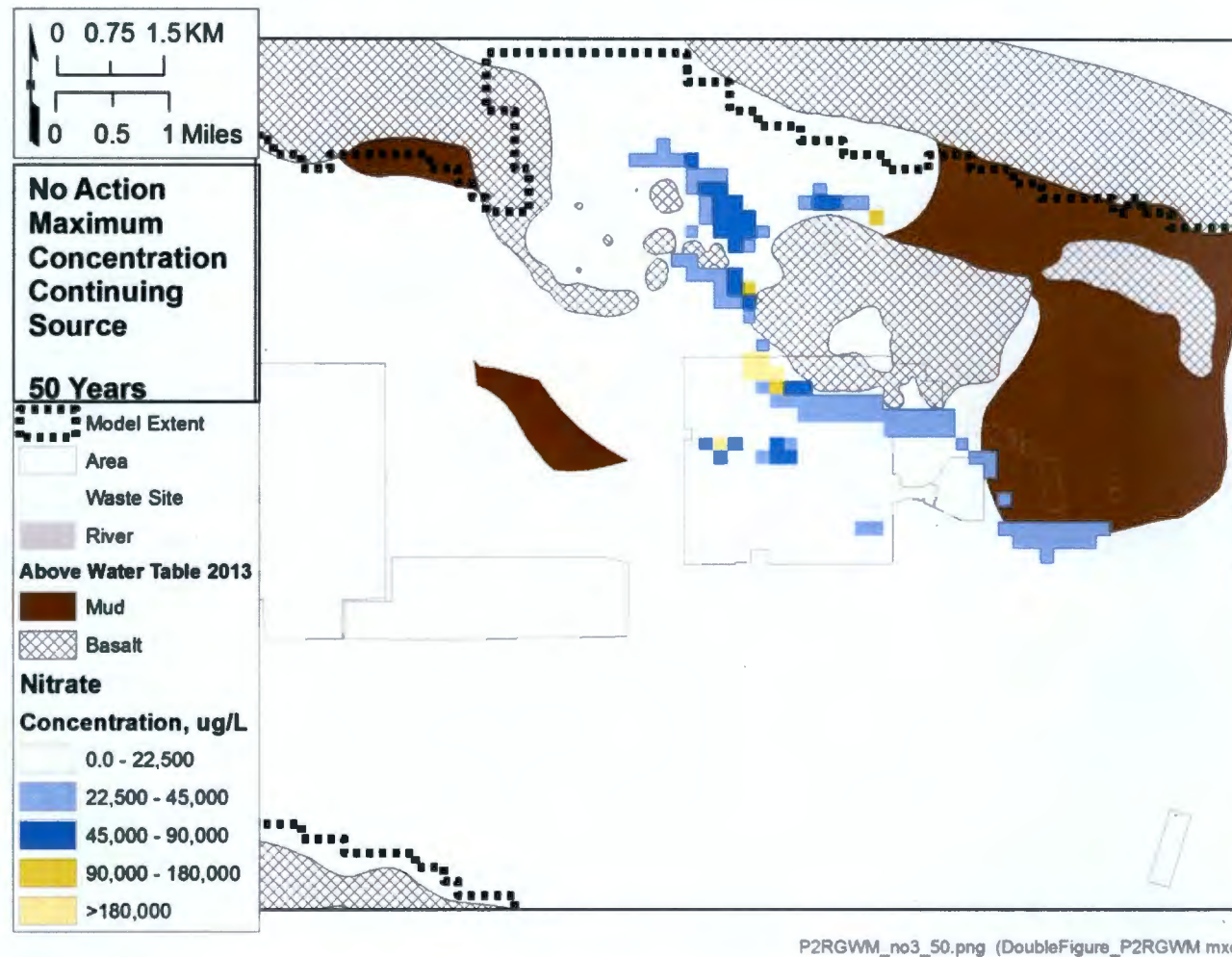
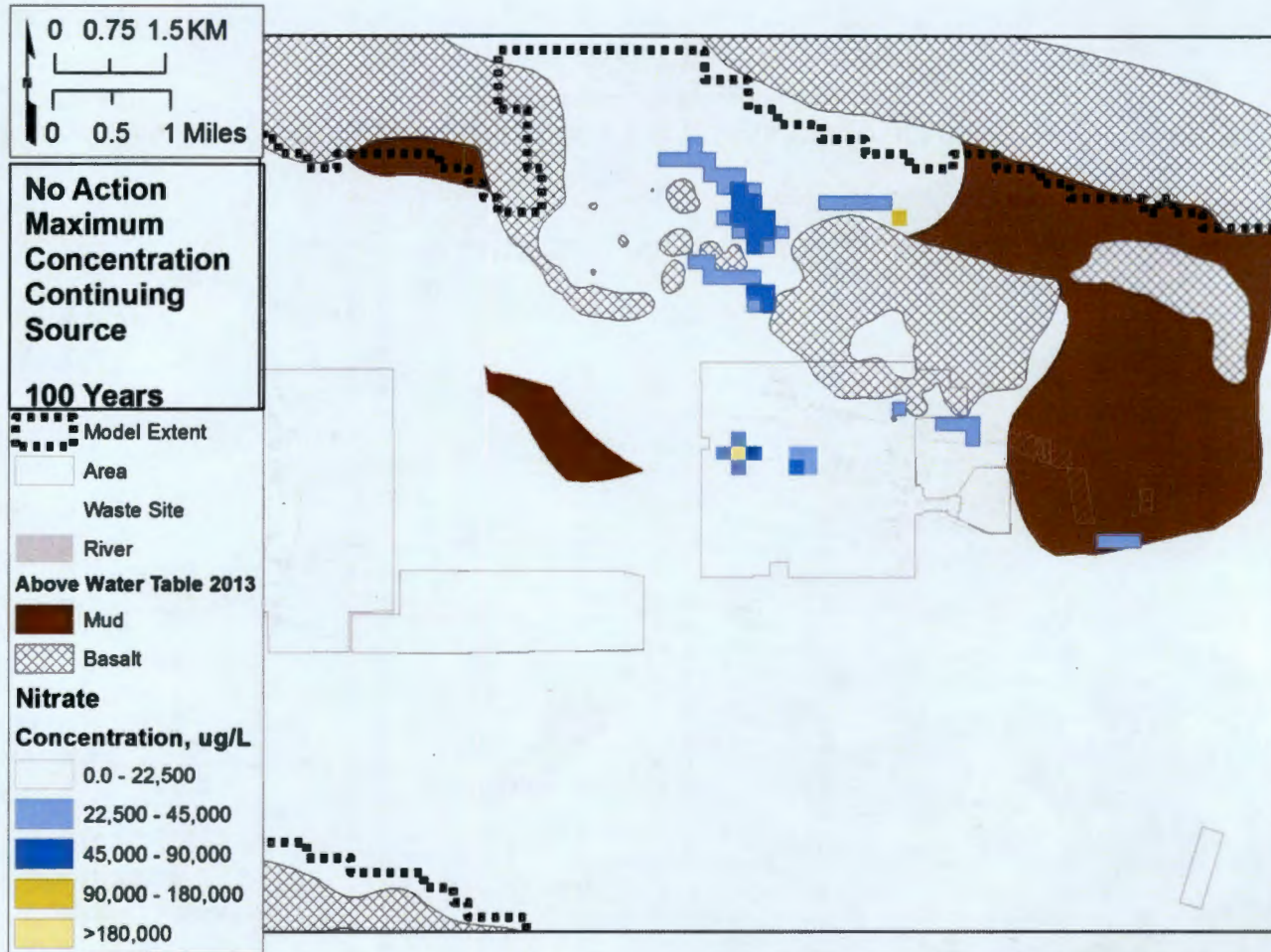
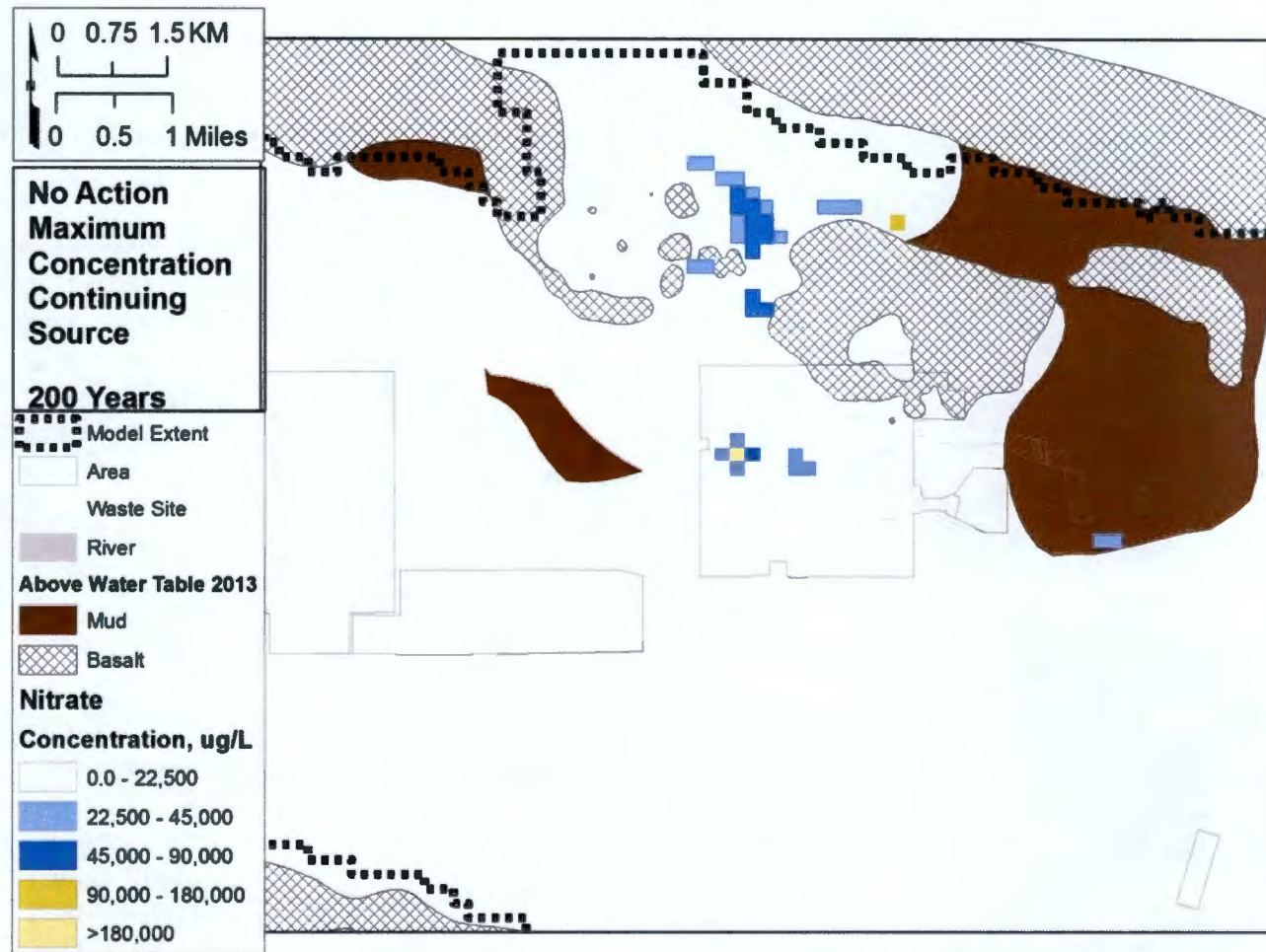


Figure B-358 - Plan view contours of the nitrate plume at simulation time 50 years based on the continuing source simulation using maximum concentration initial conditions



P2RGWM_no3_100.png (DoubleFigure_P2RGWM.mxd)

Figure B-359 - Plan view contours of the nitrate plume at simulation time 100 years based on the continuing source simulation using maximum concentration initial conditions



P2RGWM_no3_200.png (DoubleFigure_P2RGWM.mxd)

Figure B-360 - Plan view contours of the nitrate plume at simulation time 200 years based on the continuing source simulation using maximum concentration initial conditions

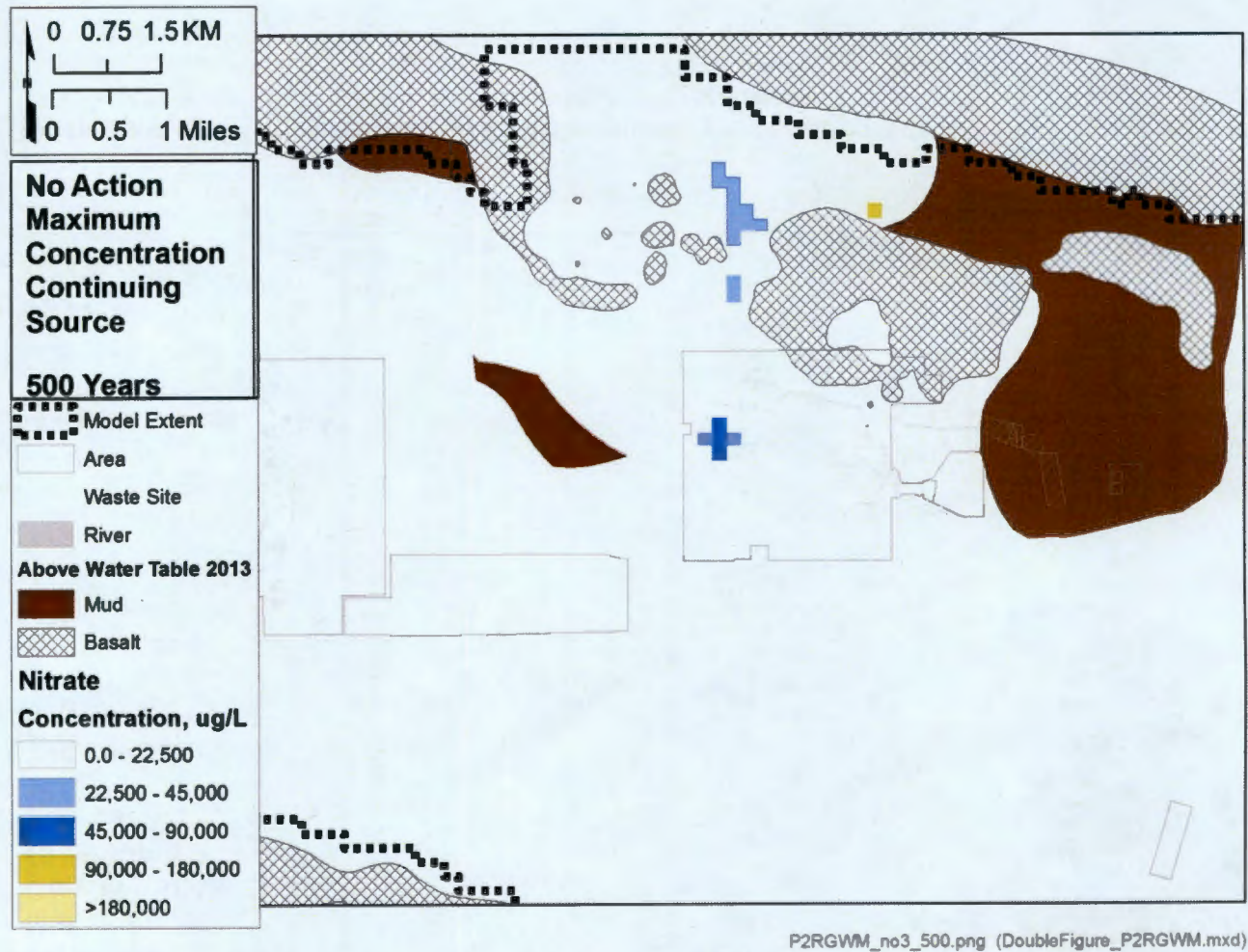


Figure B-361 - Plan view contours of the nitrate plume at simulation time 500 years based on the continuing source simulation using maximum concentration initial conditions

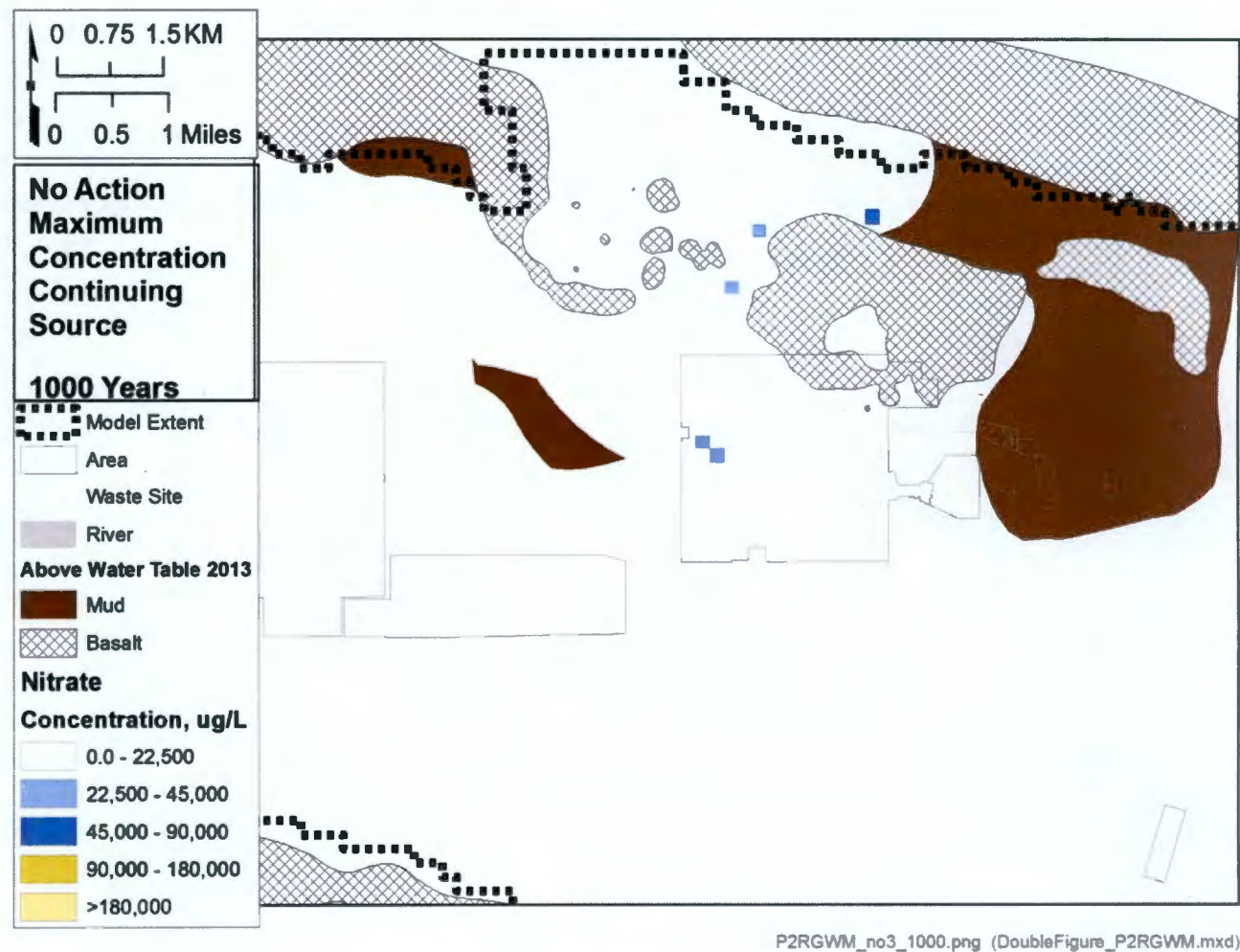


Figure B-362 - Plan view contours of the nitrate plume at simulation time 1000 years based on the continuing source simulation using maximum concentration initial conditions

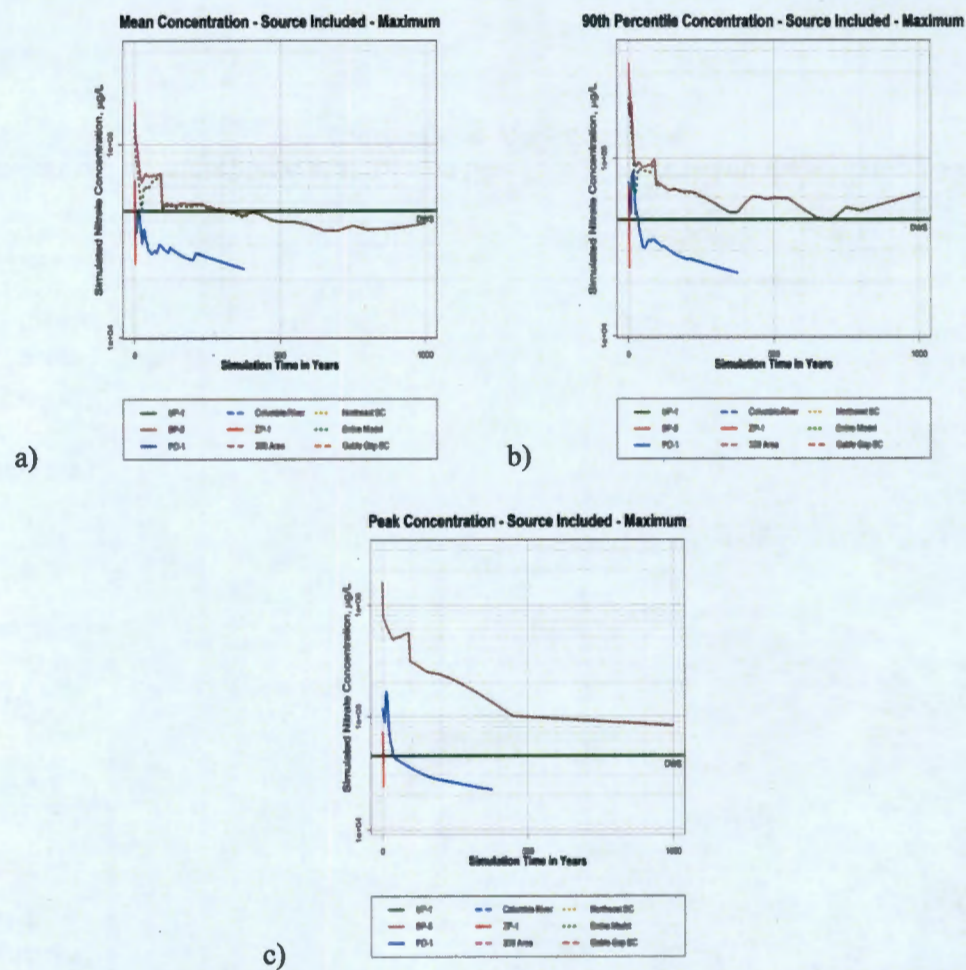


Figure B-363 - Statistical summary of simulated concentration within subregions of the model domain for the nitrate plume for the continuing source simulation using maximum concentration initial conditions.

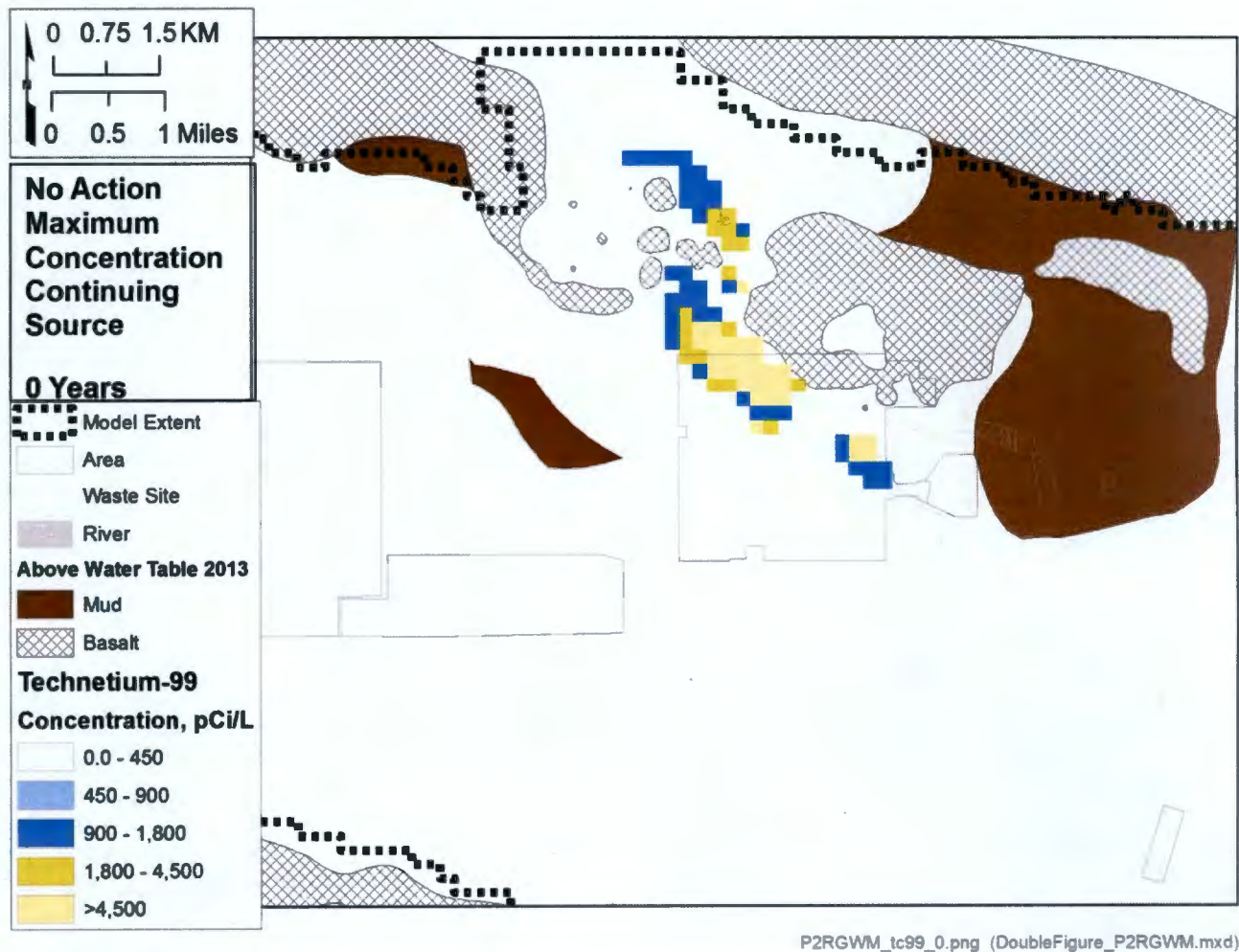


Figure B-364 - Plan view contours of the technetium-99 plume at simulation time 0 years based on the continuing source simulation using maximum concentration initial conditions

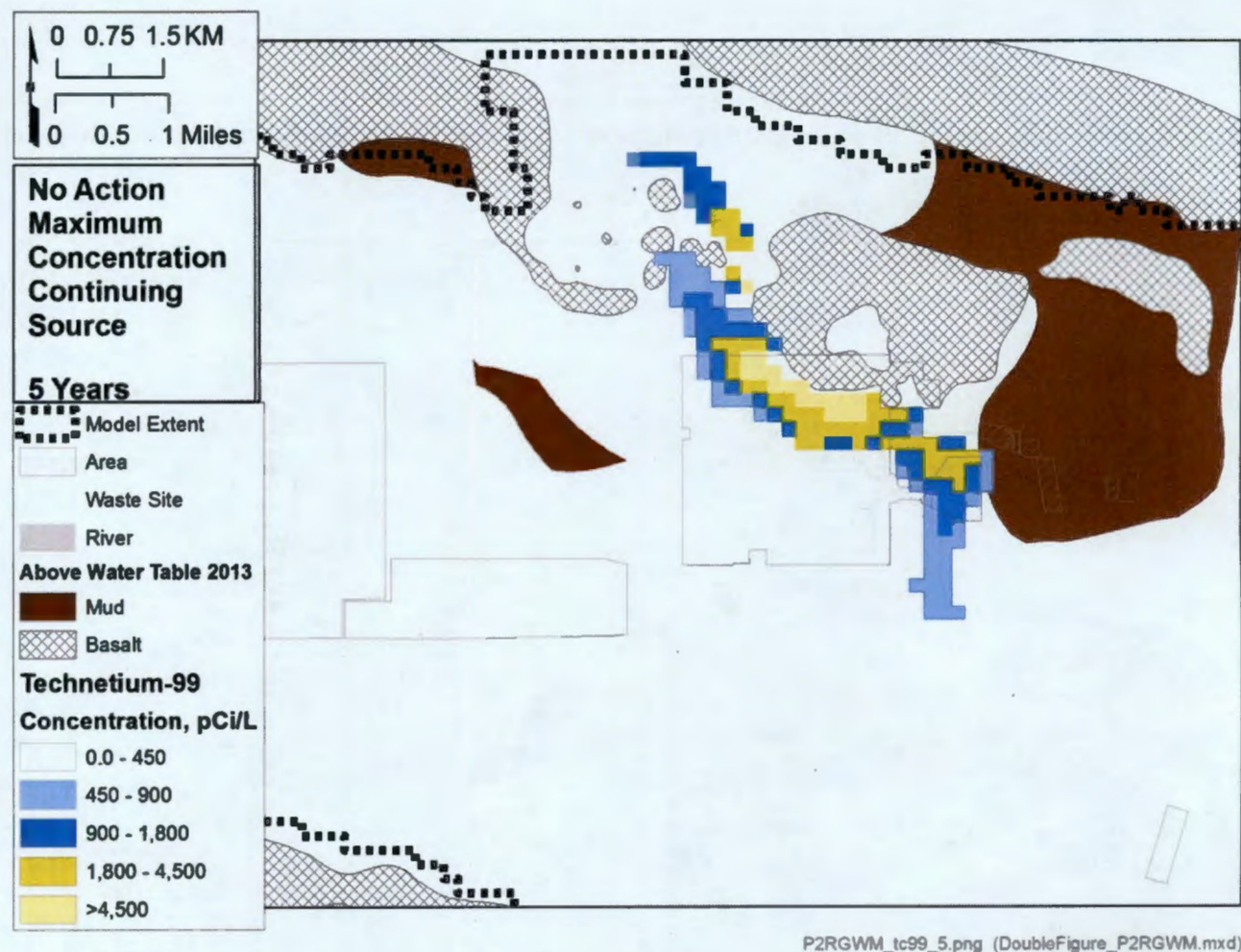


Figure B-365 - Plan view contours of the technetium-99 plume at simulation time 5 years based on the continuing source simulation using maximum concentration initial conditions

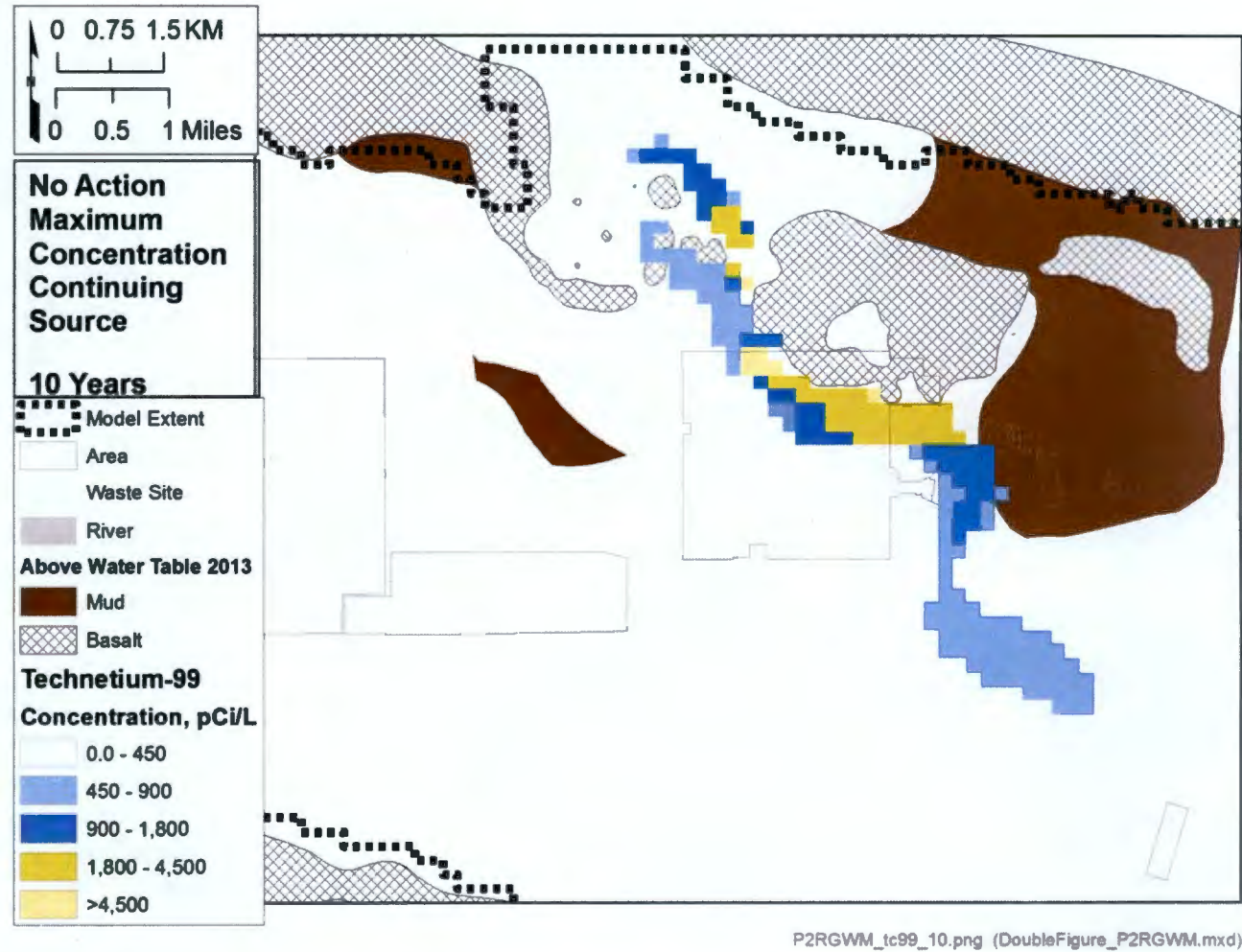


Figure B-366 - Plan view contours of the technetium-99 plume at simulation time 10 years based on the continuing source simulation using maximum concentration initial conditions

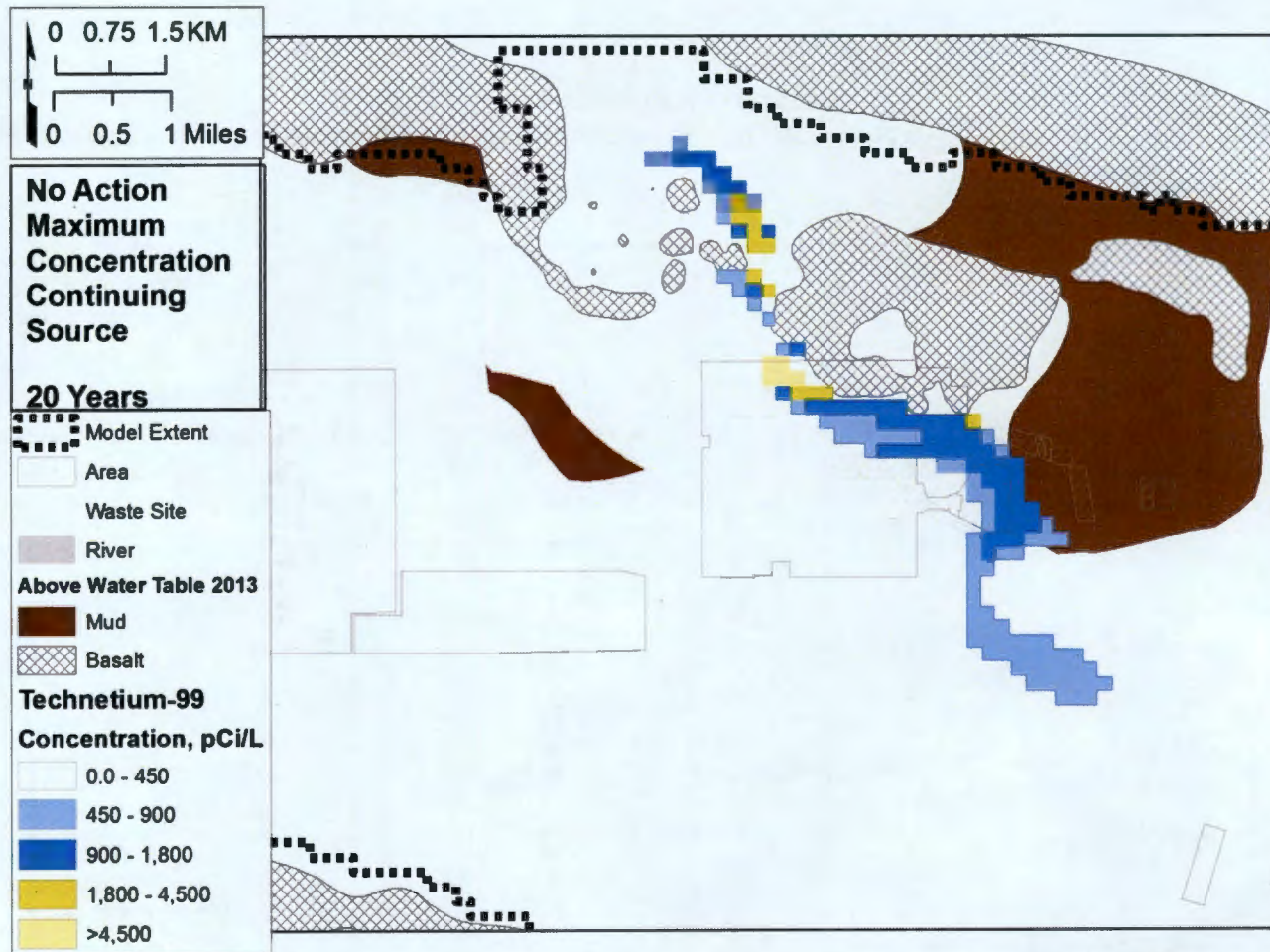


Figure B-367 - Plan view contours of the technetium-99 plume at simulation time 20 years based on the continuing source simulation using maximum concentration initial conditions

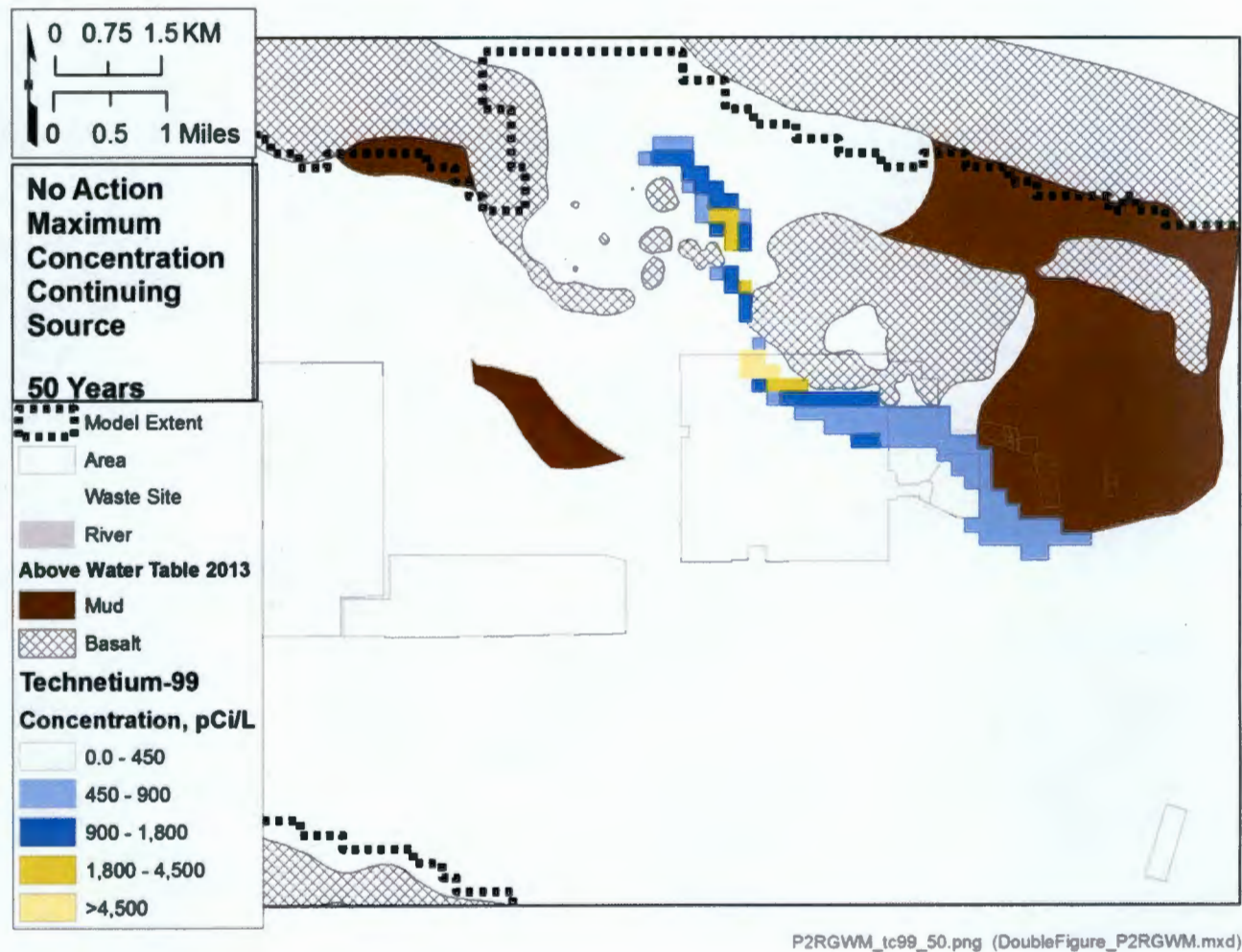


Figure B-368 - Plan view contours of the technetium-99 plume at simulation time 50 years based on the continuing source simulation using maximum concentration initial conditions

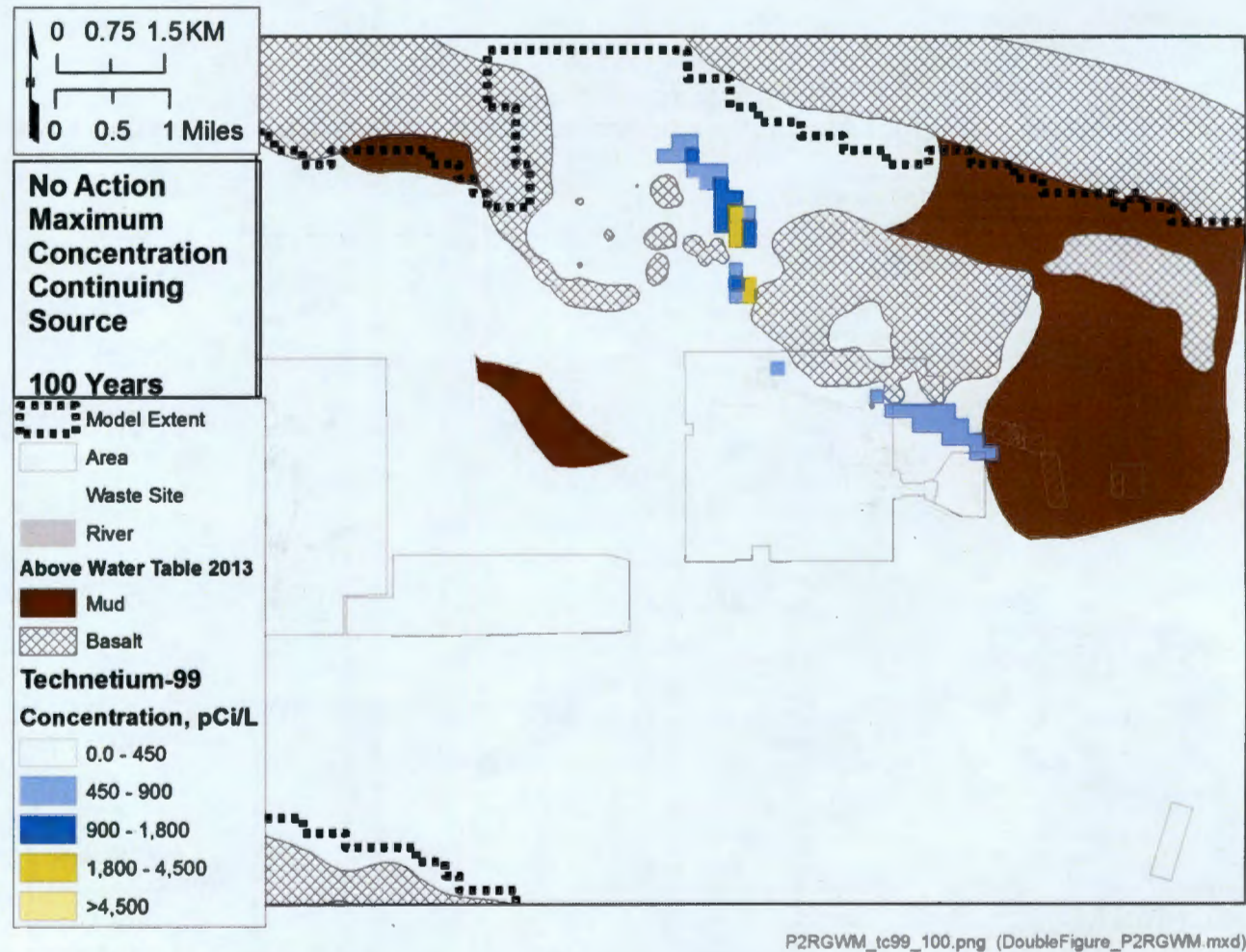


Figure B-369 - Plan view contours of the technetium-99 plume at simulation time 100 years based on the continuing source simulation using maximum concentration initial conditions

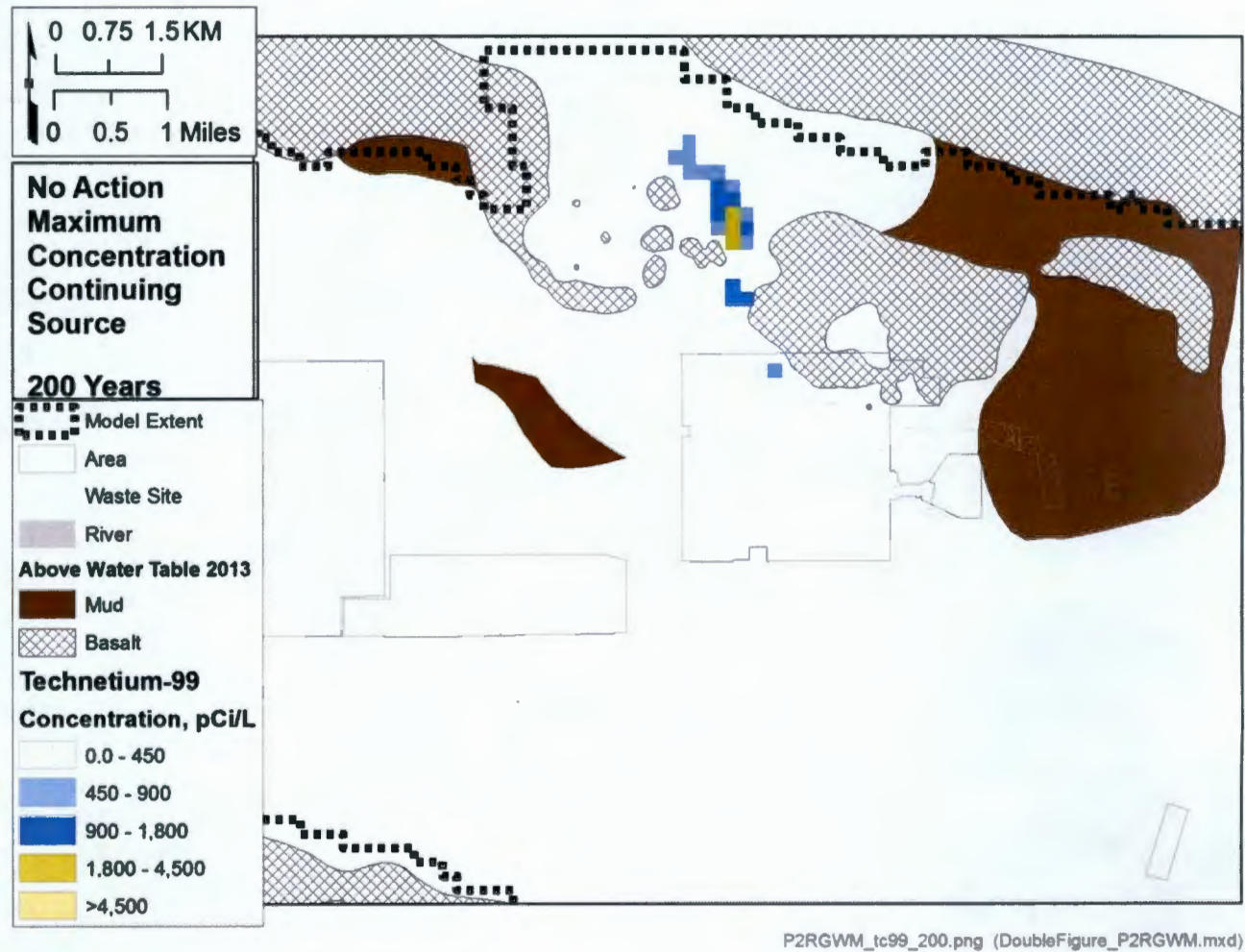


Figure B-370 - Plan view contours of the technetium-99 plume at simulation time 200 years based on the continuing source simulation using maximum concentration initial conditions

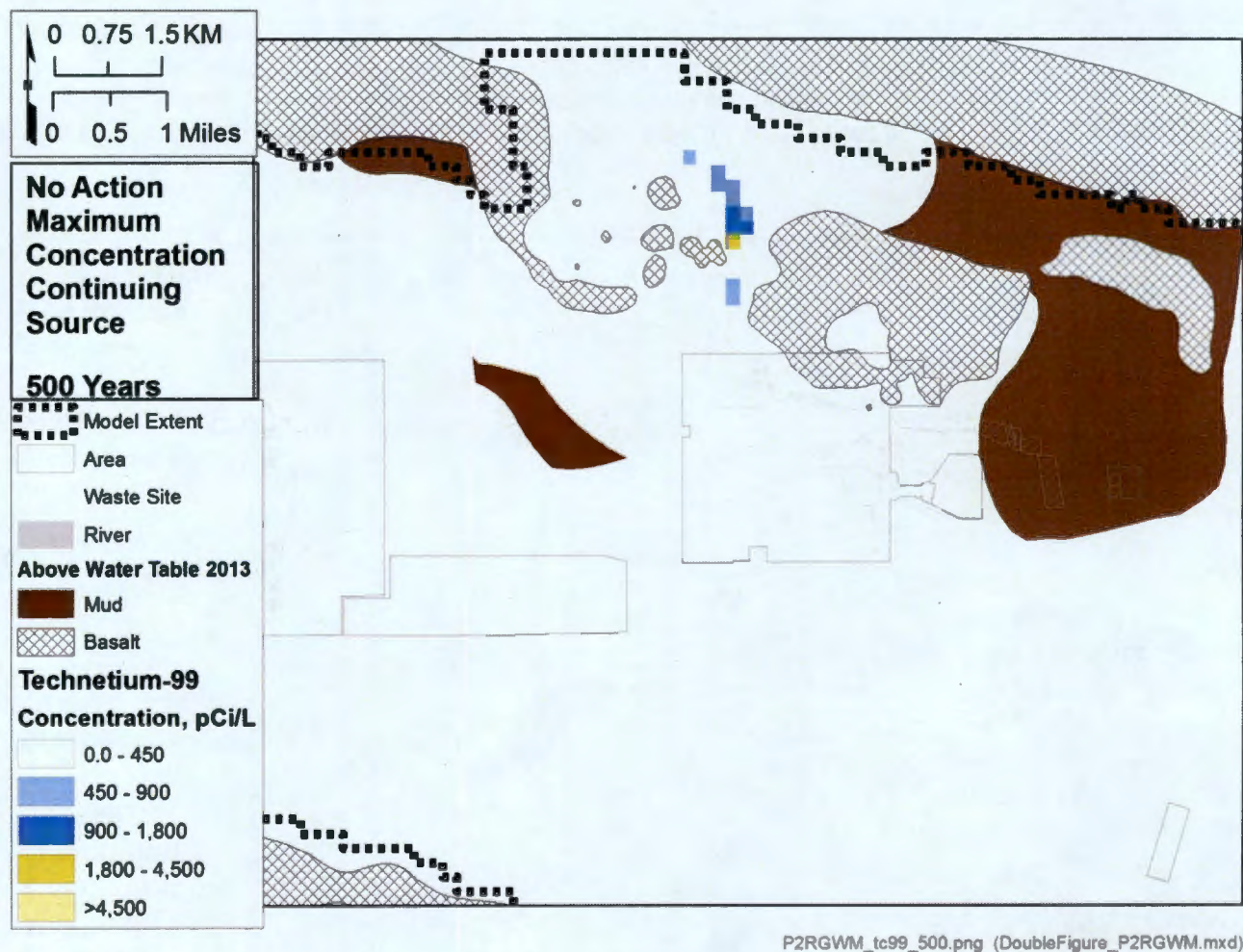


Figure B-371 - Plan view contours of the technetium-99 plume at simulation time 500 years based on the continuing source simulation using maximum concentration initial conditions

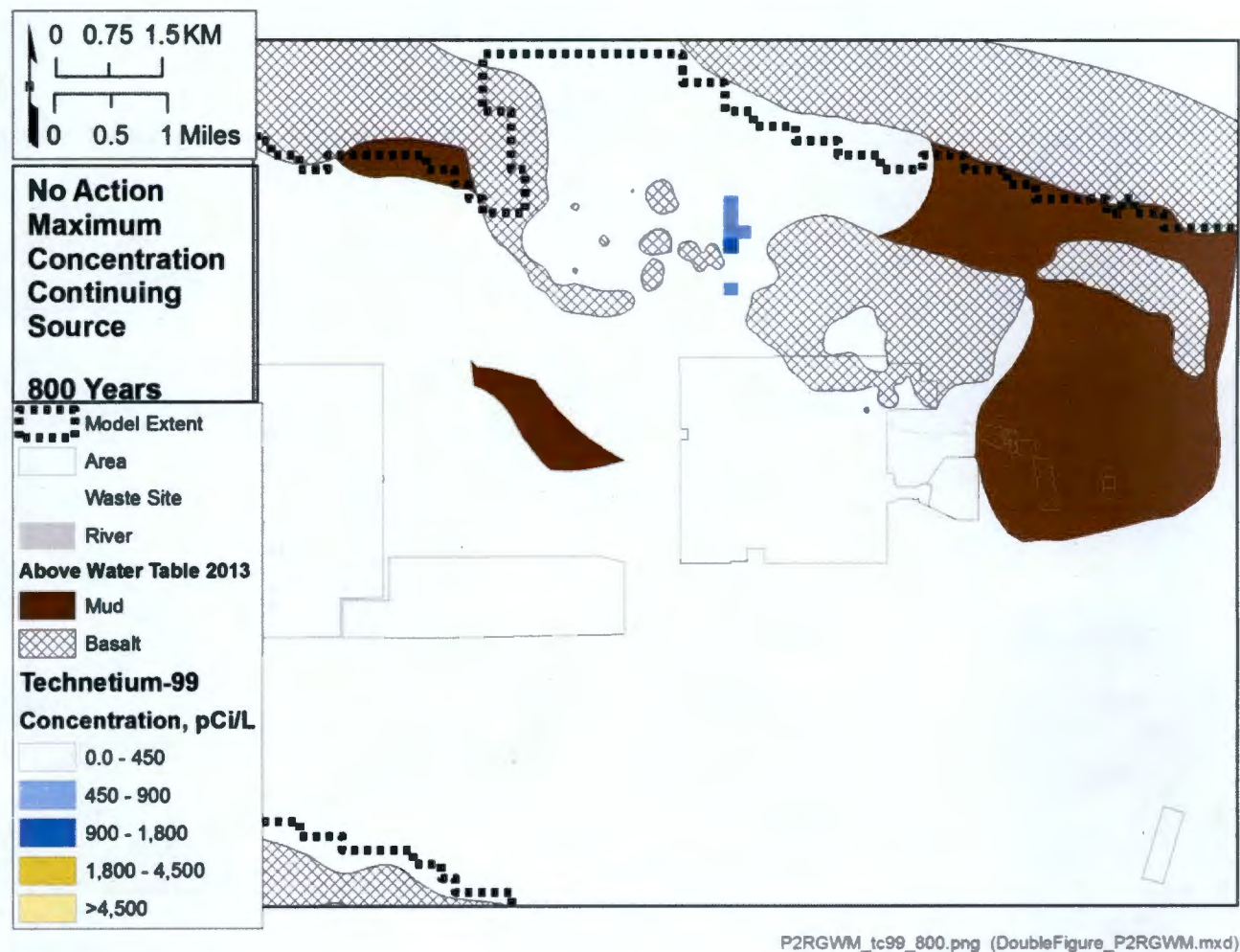


Figure B-372 - Plan view contours of the technetium-99 plume at simulation time 800 years based on the continuing source simulation using maximum concentration initial conditions

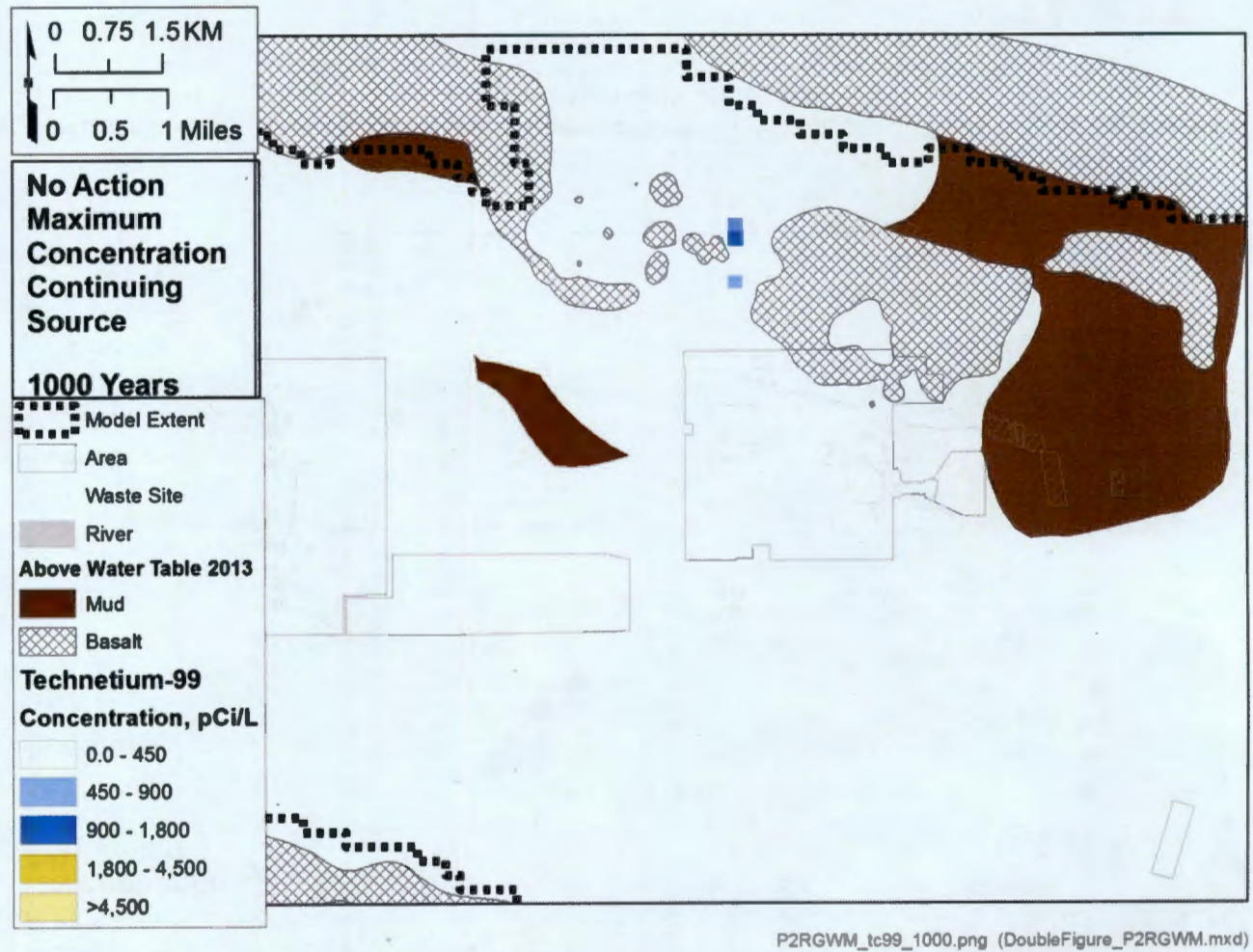


Figure B-373 - Plan view contours of the technetium-99 plume at simulation time 1000 years based on the continuing source simulation using maximum concentration initial conditions

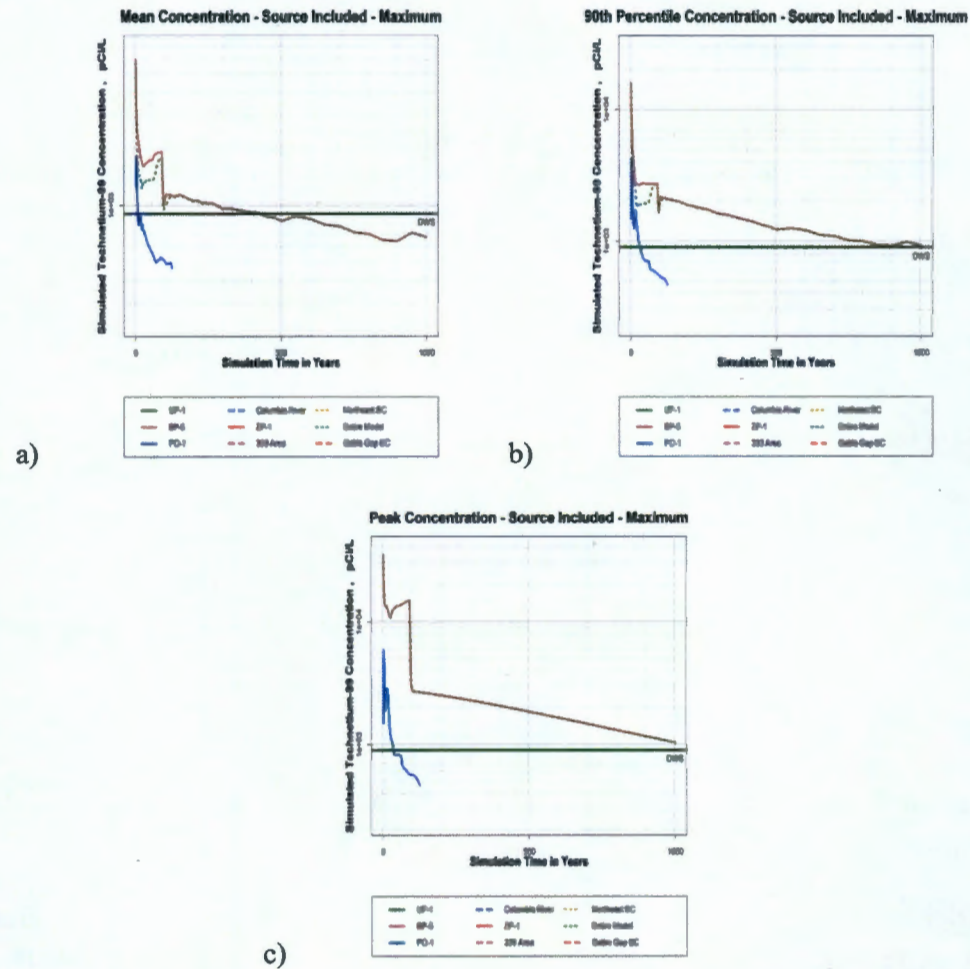
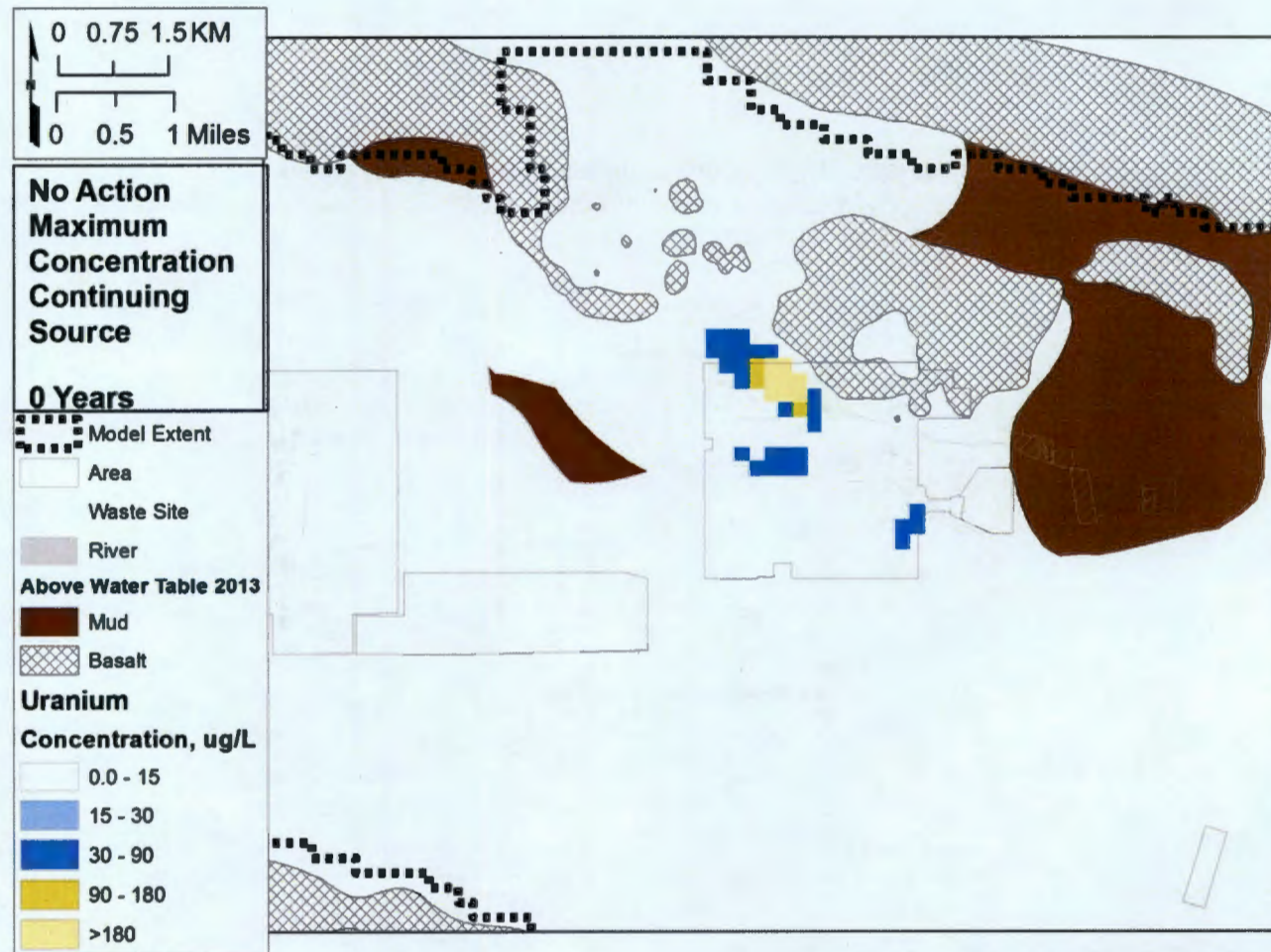
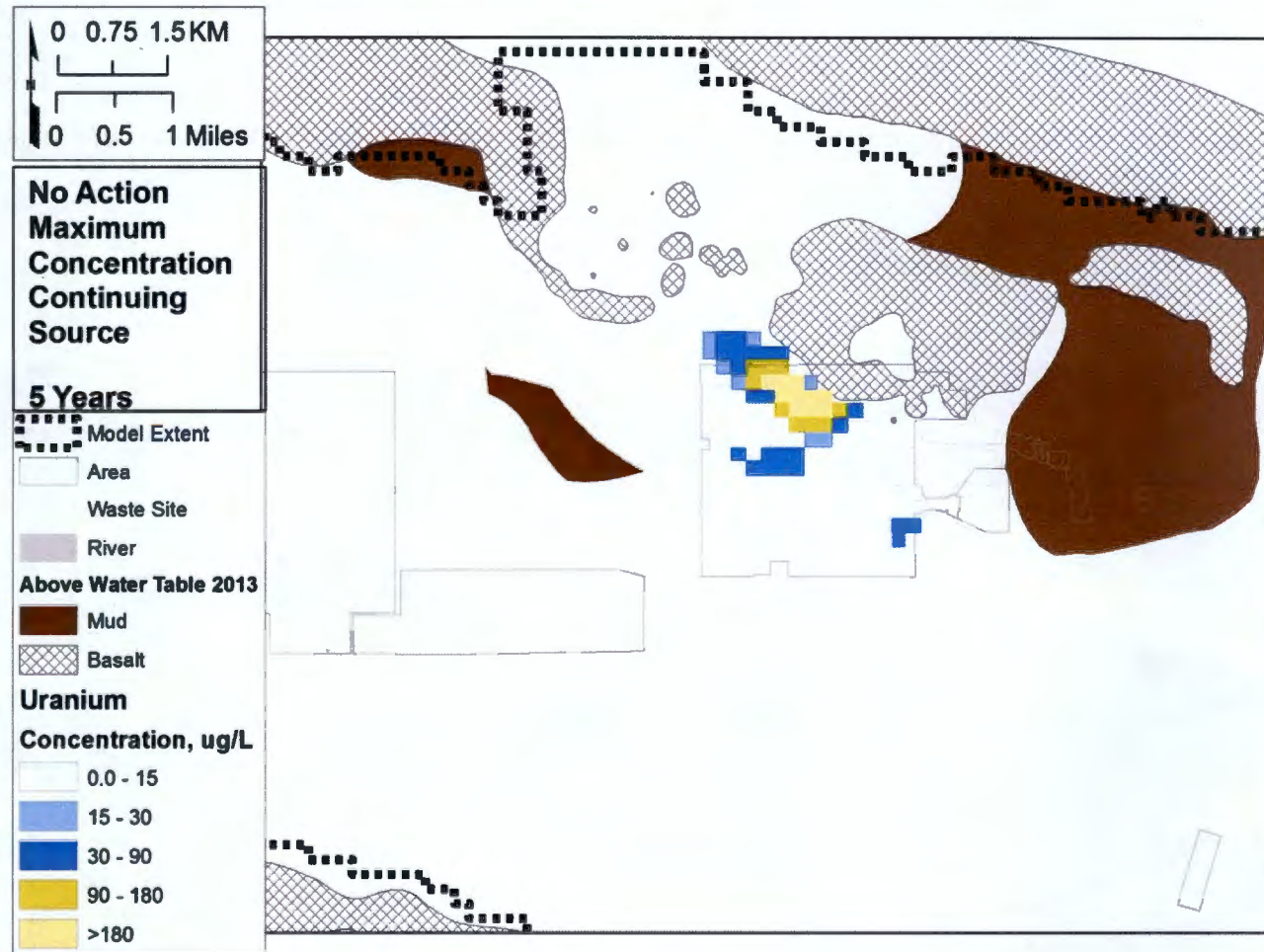


Figure B-374 - Statistical summary of simulated concentration within subregions of the model domain for the technetium-99 plume for the continuing source simulation using maximum concentration initial conditions.



P2RGWM_u238_0.png (DoubleFigure_P2RGWM.mxd)

Figure B-375 - Plan view contours of the uranium plume at simulation time 0 years based on the continuing source simulation using maximum concentration initial conditions



P2RGWM_u238_5.png (DoubleFigure_P2RGWM.mxd)

Figure B-376 - Plan view contours of the uranium plume at simulation time 5 years based on the continuing source simulation using maximum concentration initial conditions

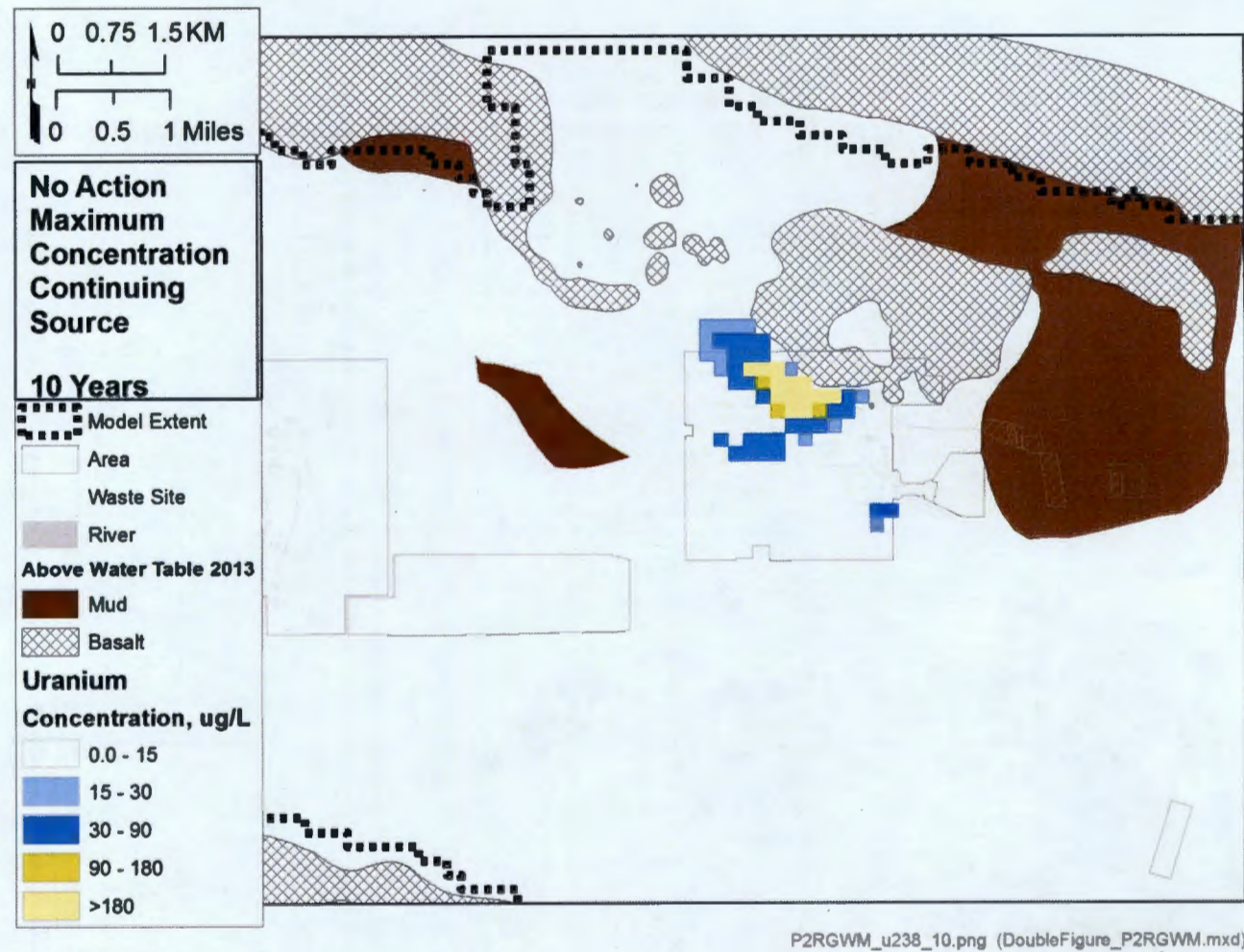
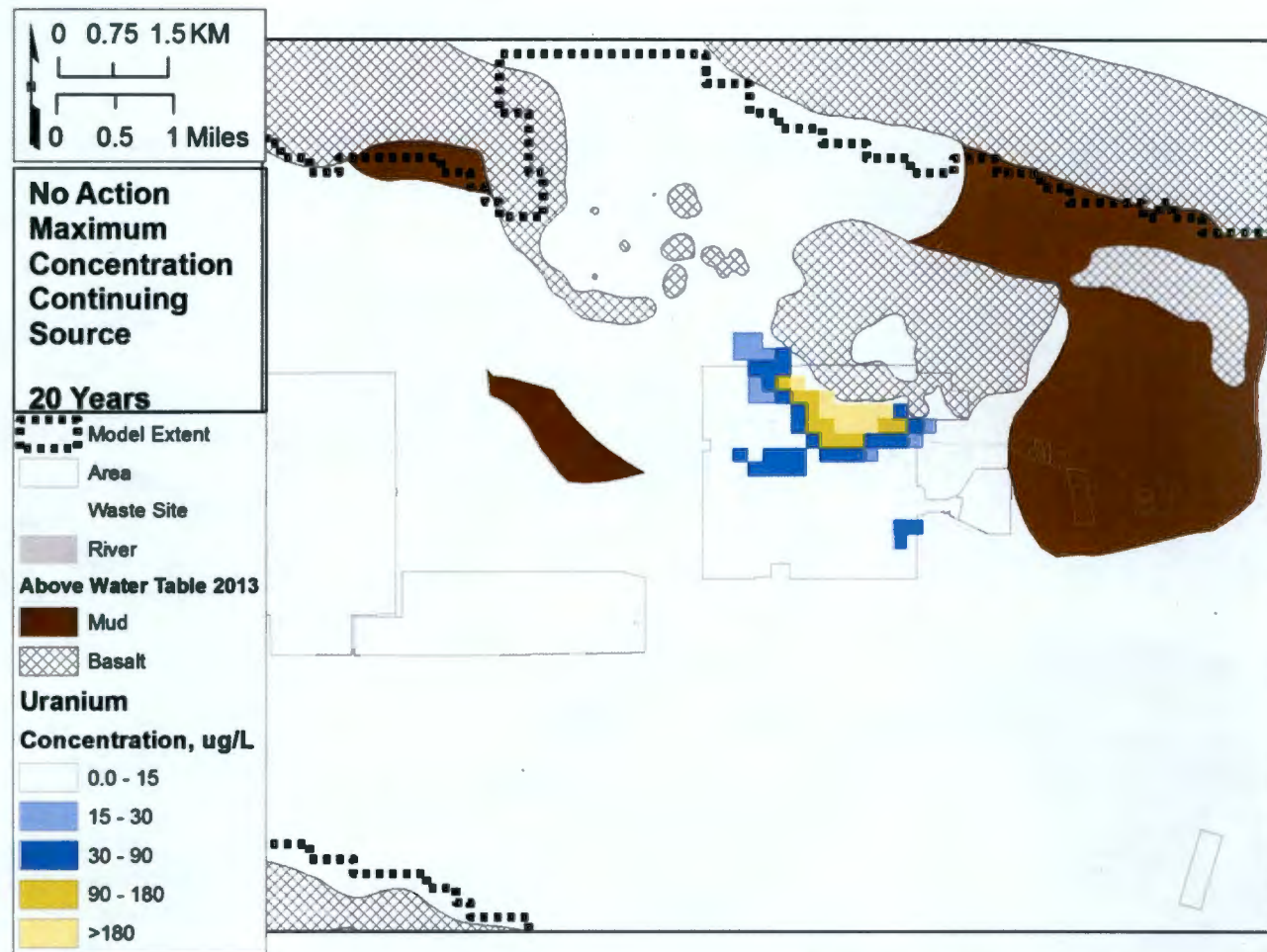


Figure B-377 - Plan view contours of the uranium plume at simulation time 10 years based on the continuing source simulation using maximum concentration initial conditions



P2RGWM_u238_20.png (DoubleFigure_P2RGWM.mxd)

Figure B-378 - Plan view contours of the uranium plume at simulation time 20 years based on the continuing source simulation using maximum concentration initial conditions

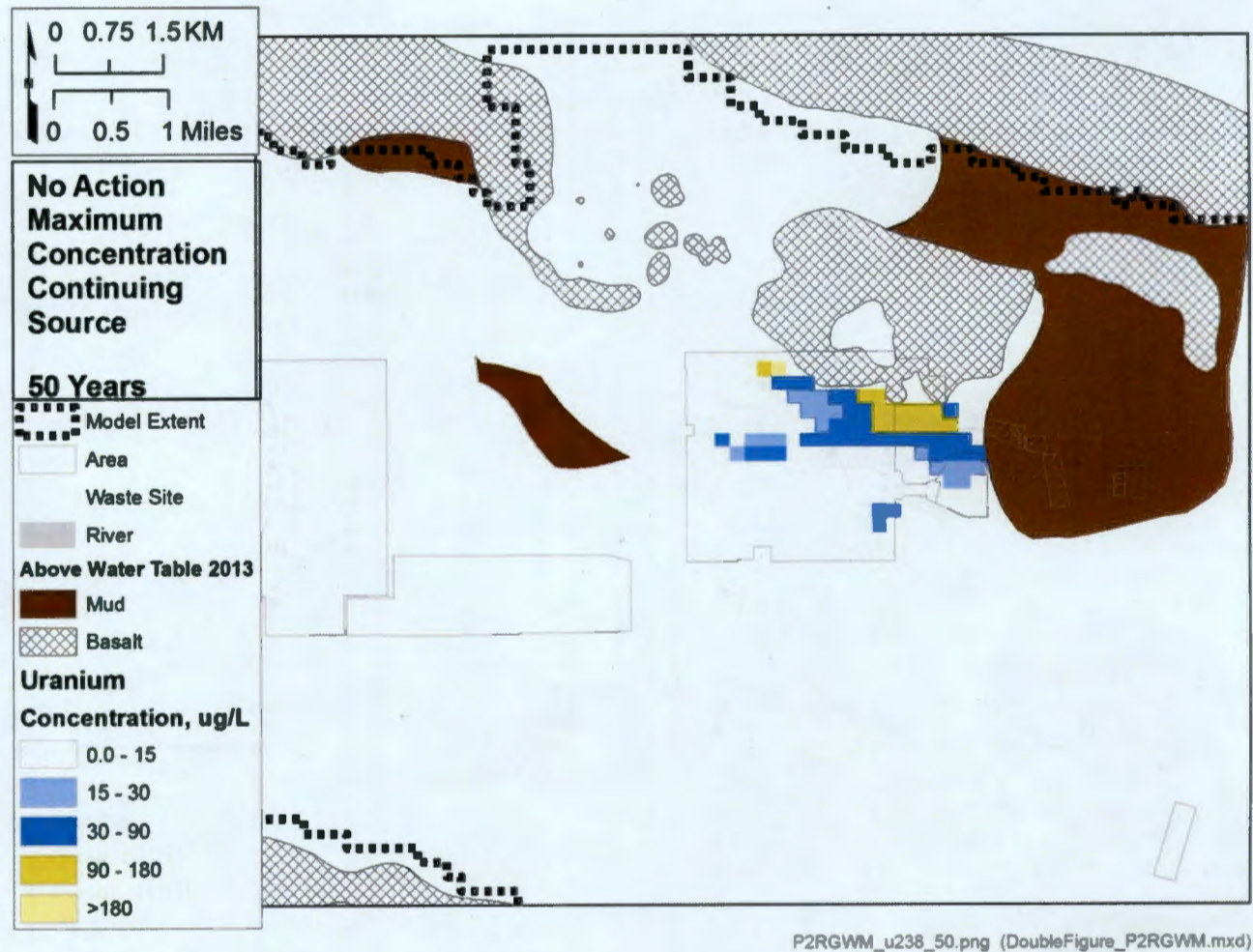
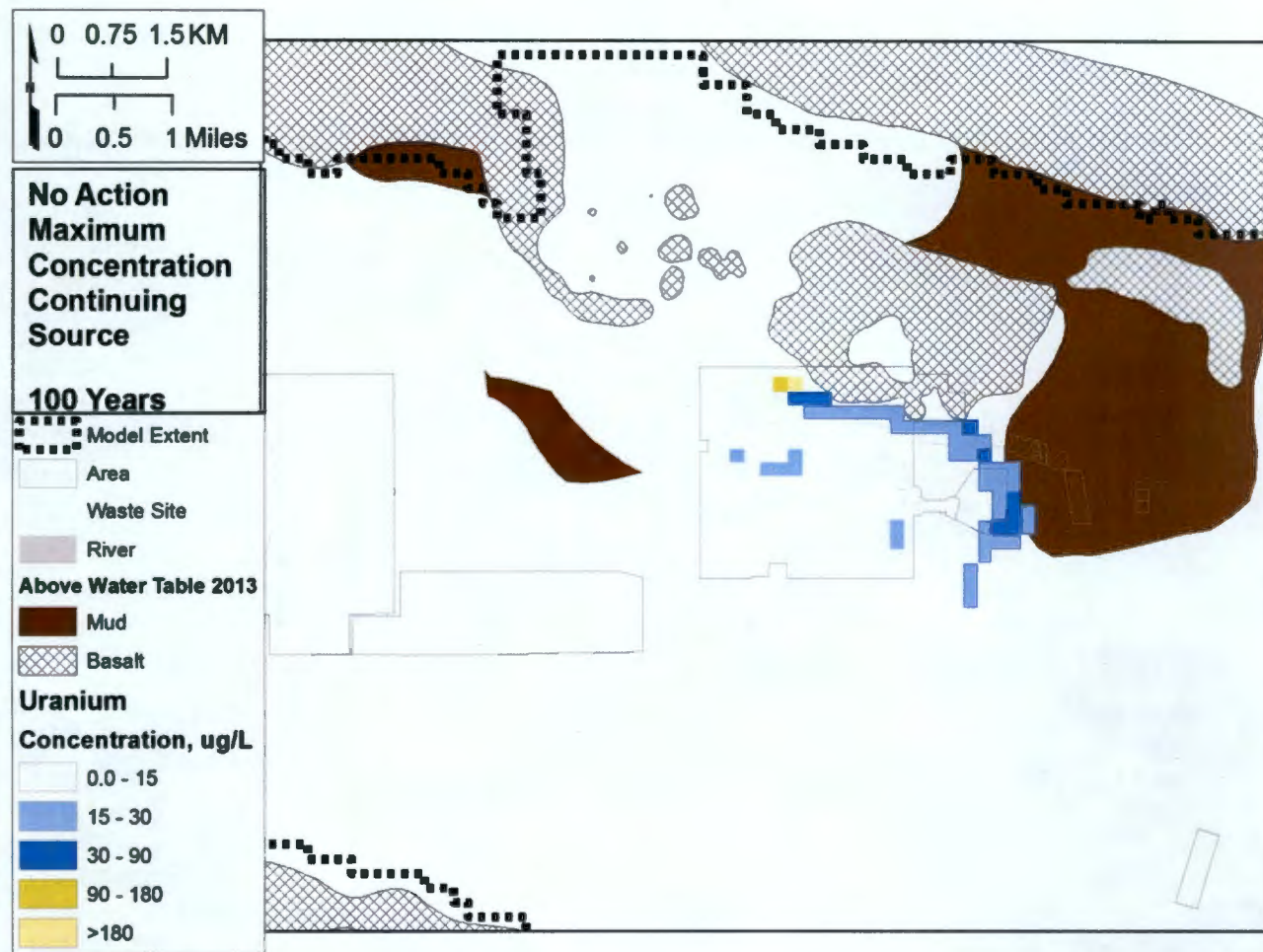
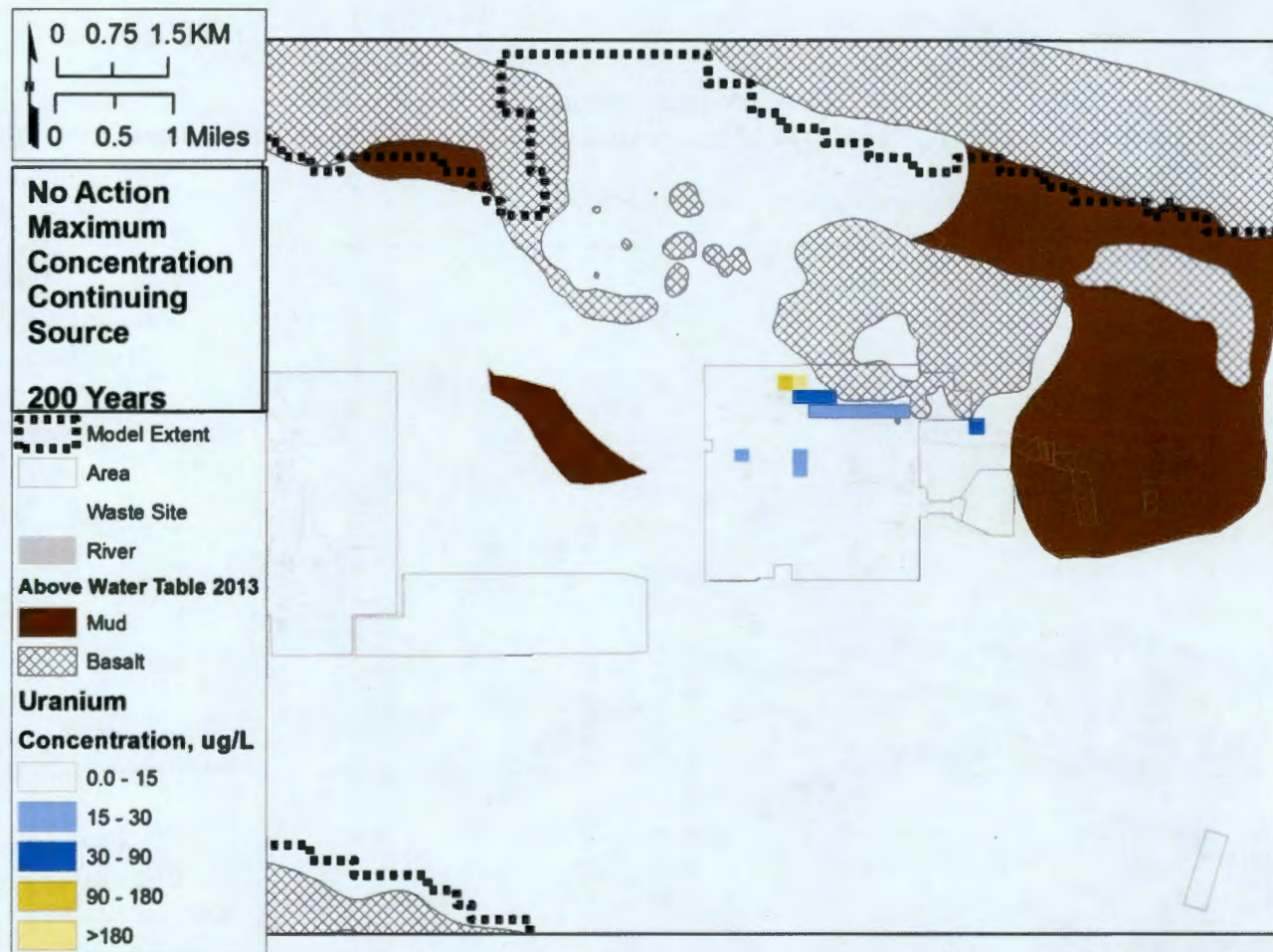


Figure B-379 - Plan view contours of the uranium plume at simulation time 50 years based on the continuing source simulation using maximum concentration initial conditions



P2RGWM_u238_100.png (DoubleFigure_P2RGWM.mxd)

Figure B-380 - Plan view contours of the uranium plume at simulation time 100 years based on the continuing source simulation using maximum concentration initial conditions



P2RGWM_u238_200.png (DoubleFigure_P2RGWM.mxd)

Figure B-381 - Plan view contours of the uranium plume at simulation time 200 years based on the continuing source simulation using maximum concentration initial conditions

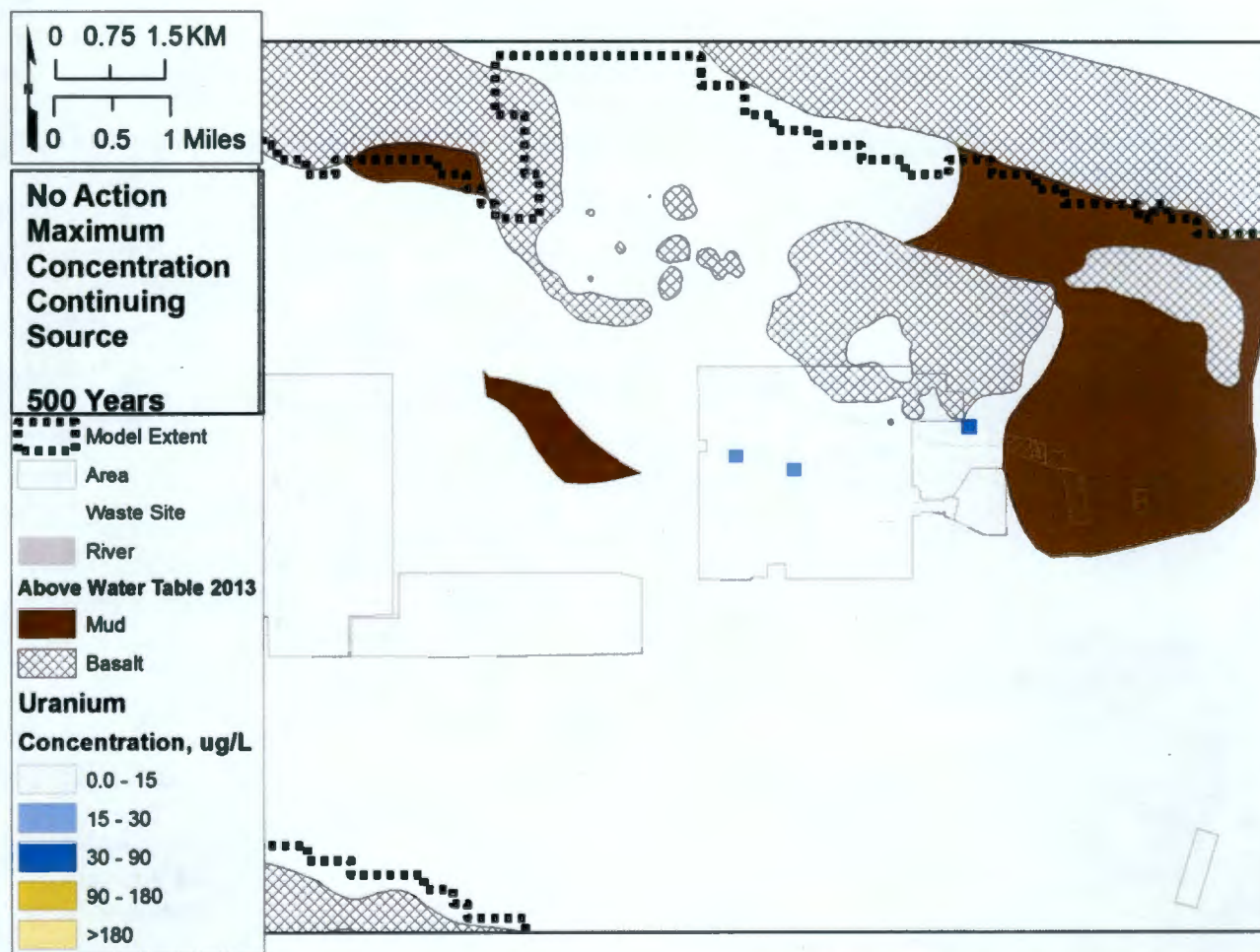


Figure B-382 - Plan view contours of the uranium plume at simulation time 500 years based on the continuing source simulation using maximum concentration initial conditions

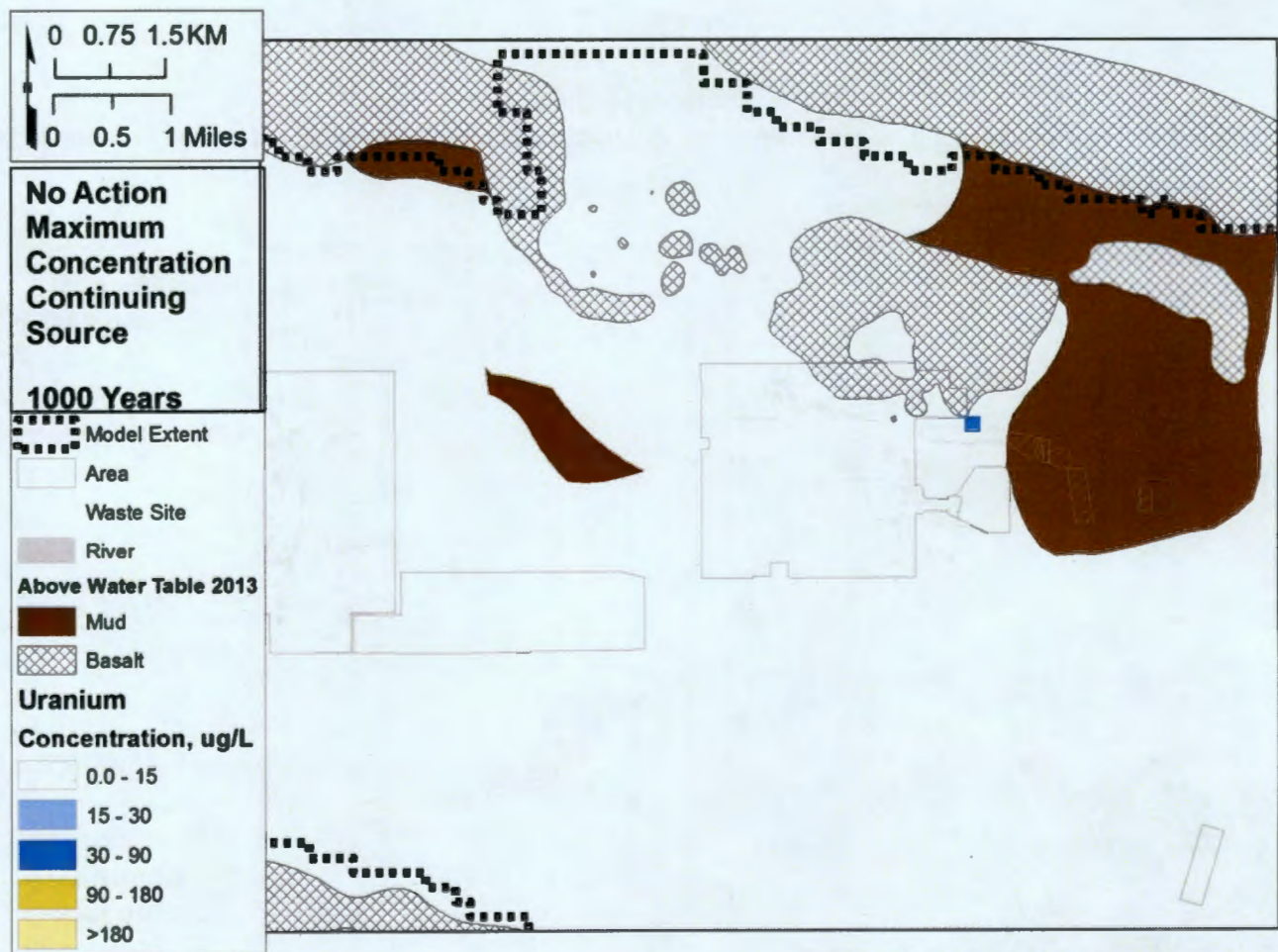


Figure B-383 - Plan view contours of the uranium plume at simulation time 1000 years based on the continuing source simulation using maximum concentration initial conditions

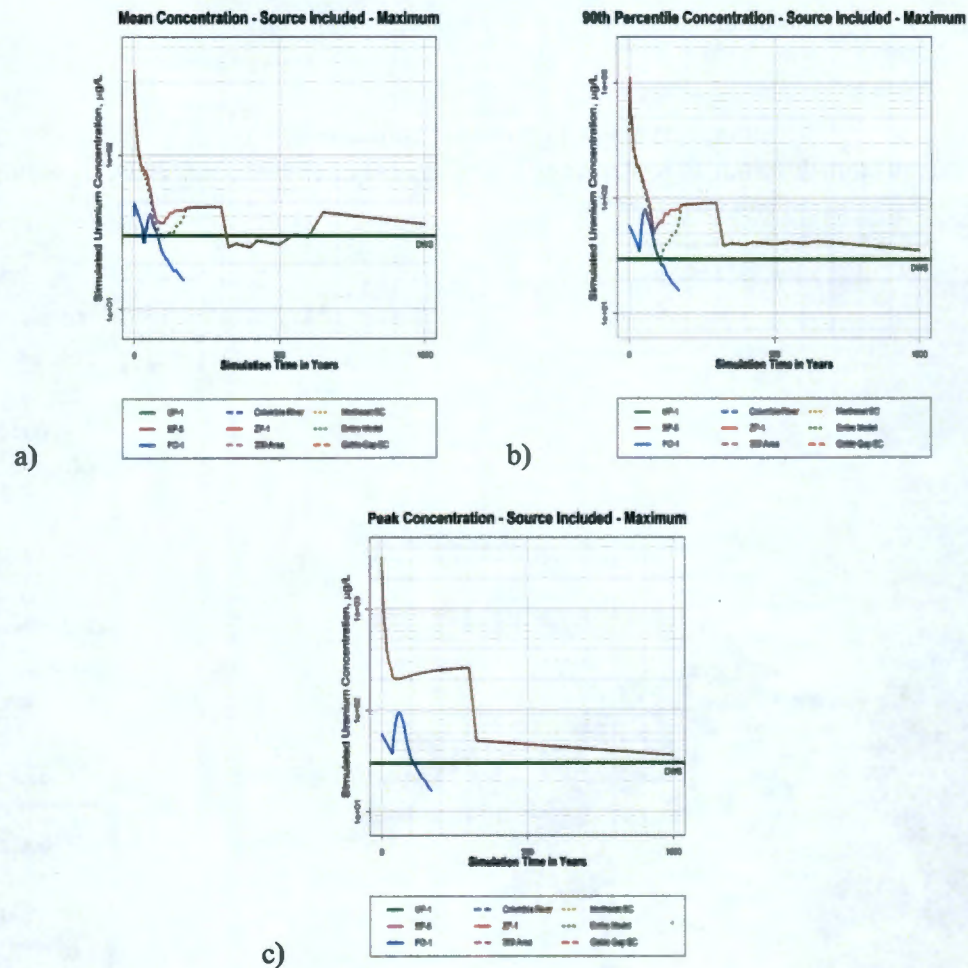


Figure B-384 - Statistical summary of simulated concentration within subregions of the model domain for the uranium plume for the continuing source simulation using maximum concentration initial conditions.

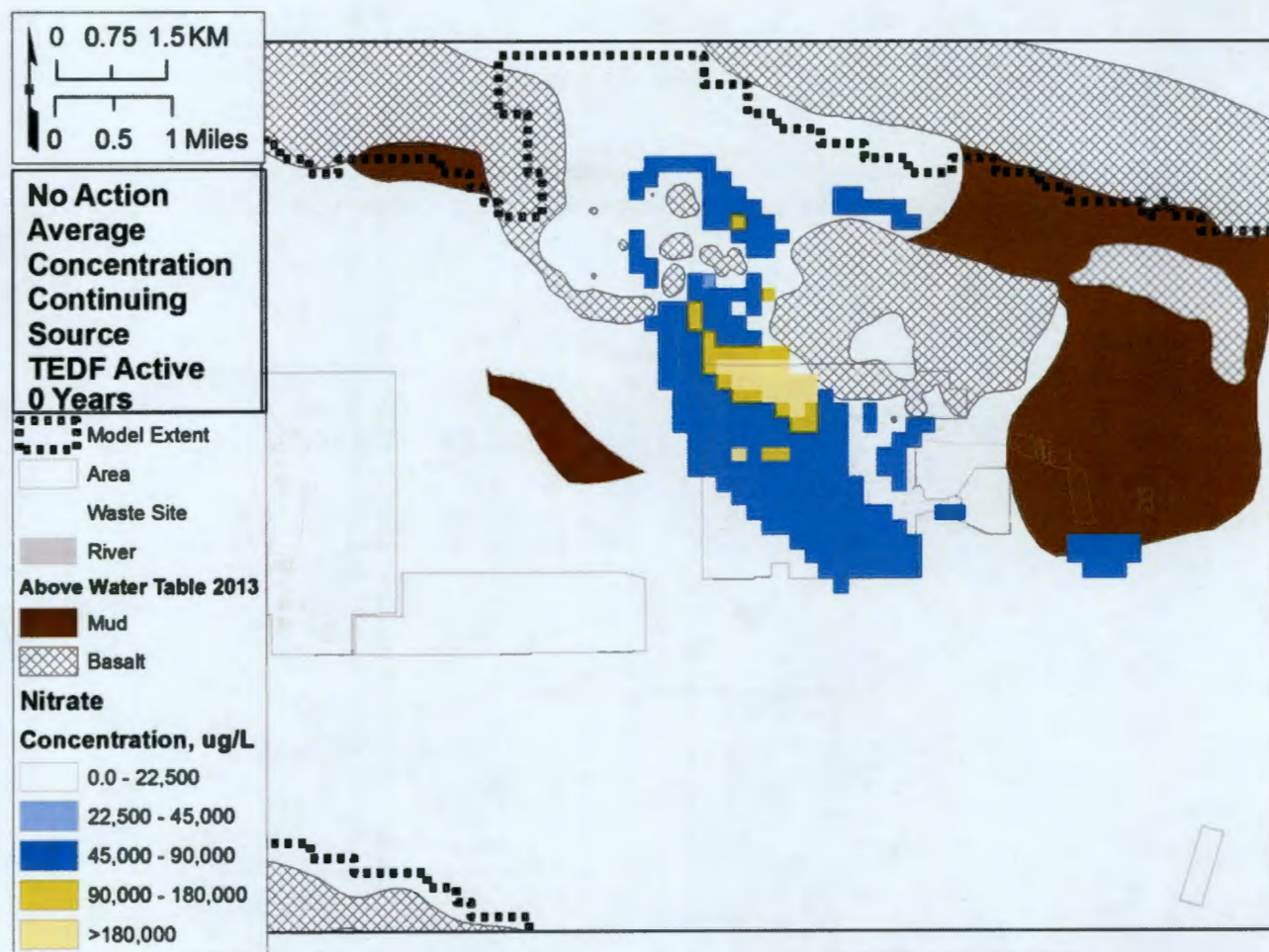
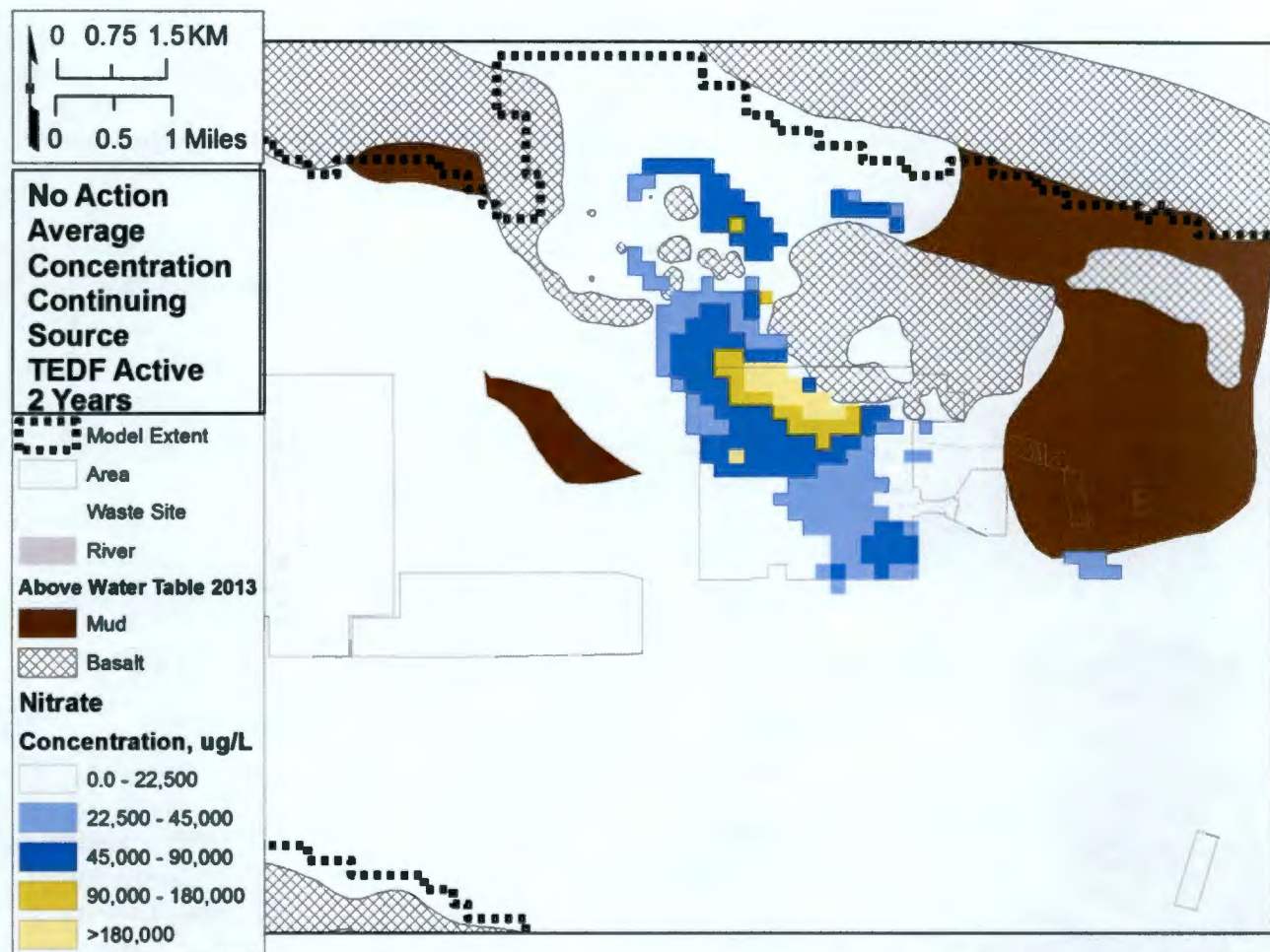


Figure B-385 - Plan view contours of the nitrate plume at simulation time 0 years based on the continuing source with TEDF future use simulation using average concentration initial conditions



P2RGWM_no3_2.png (DoubleFigure_P2RGWM.mxd)

Figure B-386 - Plan view contours of the nitrate plume at simulation time 2 years based on the continuing source with TEDF future use simulation using average concentration initial conditions

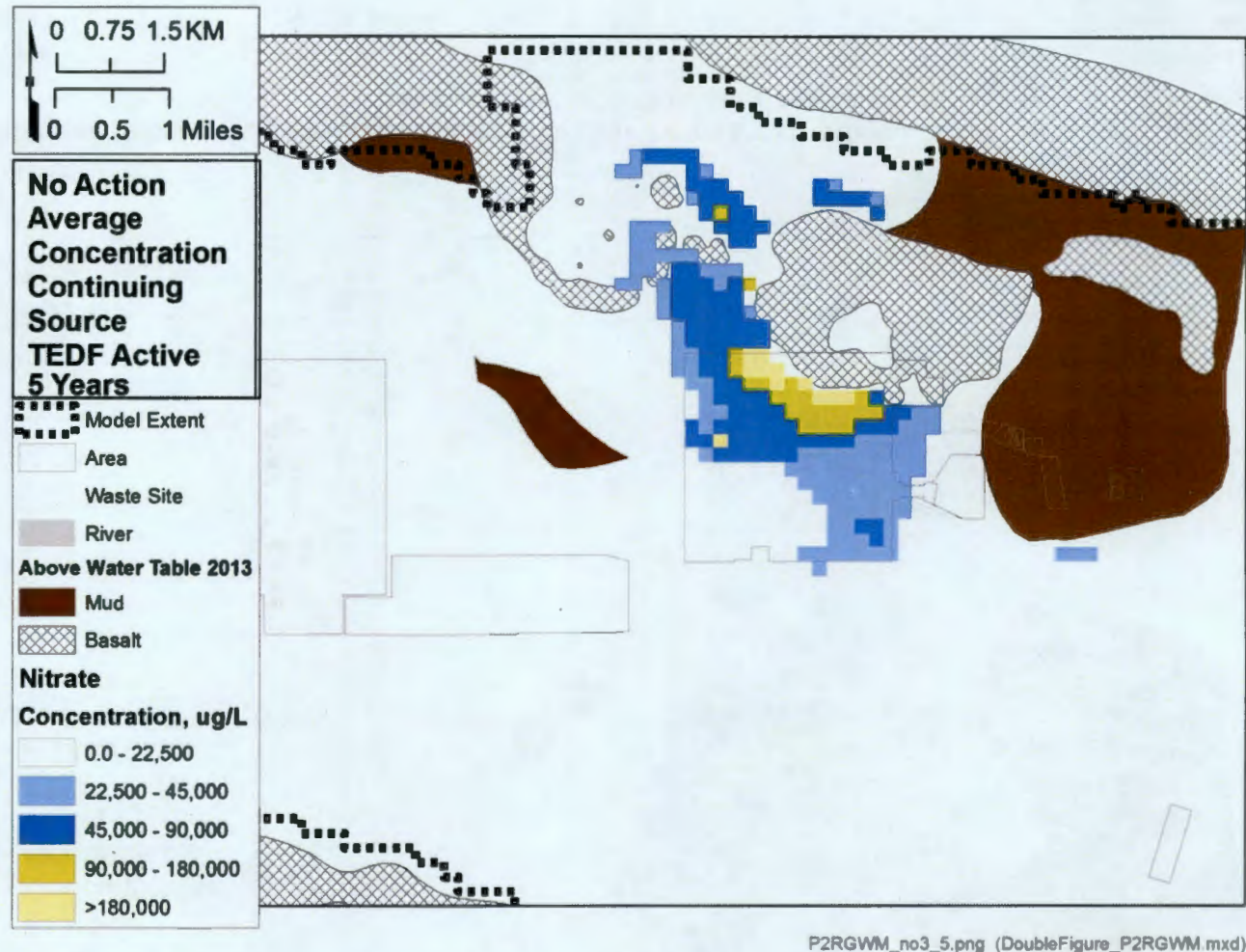


Figure B-387 - Plan view contours of the nitrate plume at simulation time 5 years based on the continuing source with TEDF future use simulation using average concentration initial conditions

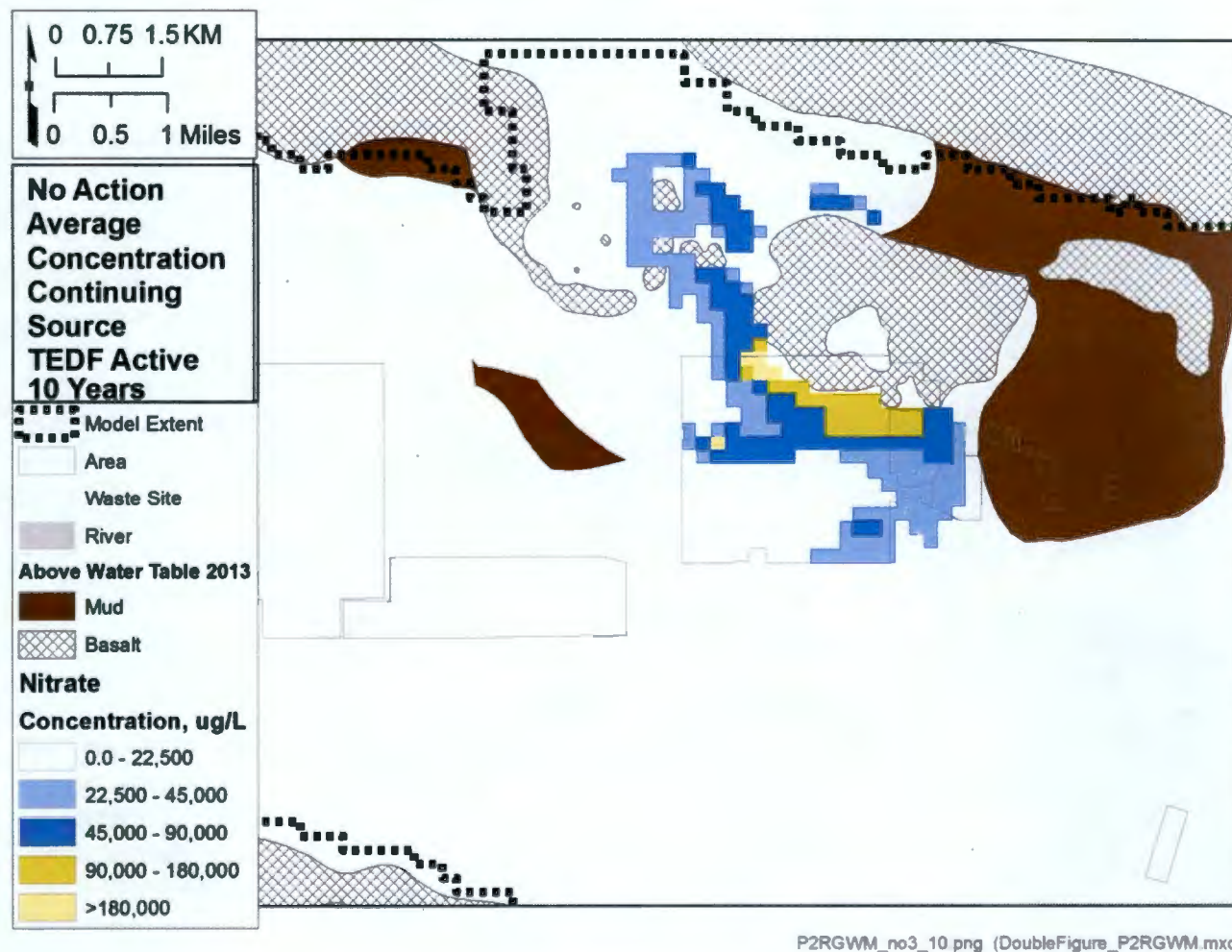


Figure B-388 - Plan view contours of the nitrate plume at simulation time 10 years based on the continuing source with TEDF future use simulation using average concentration initial conditions

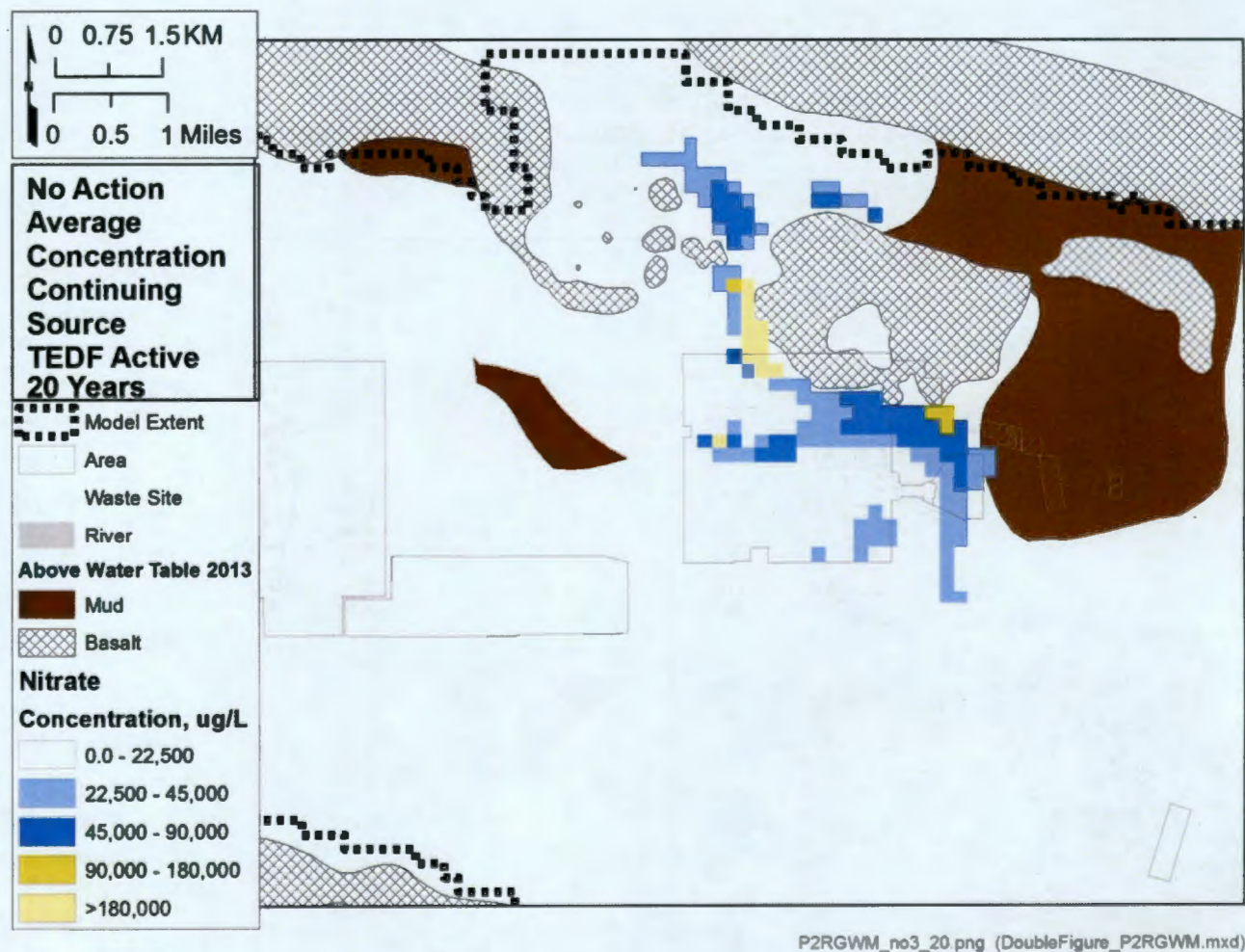


Figure B-389 - Plan view contours of the nitrate plume at simulation time 20 years based on the continuing source with TEDF future use simulation using average concentration initial conditions

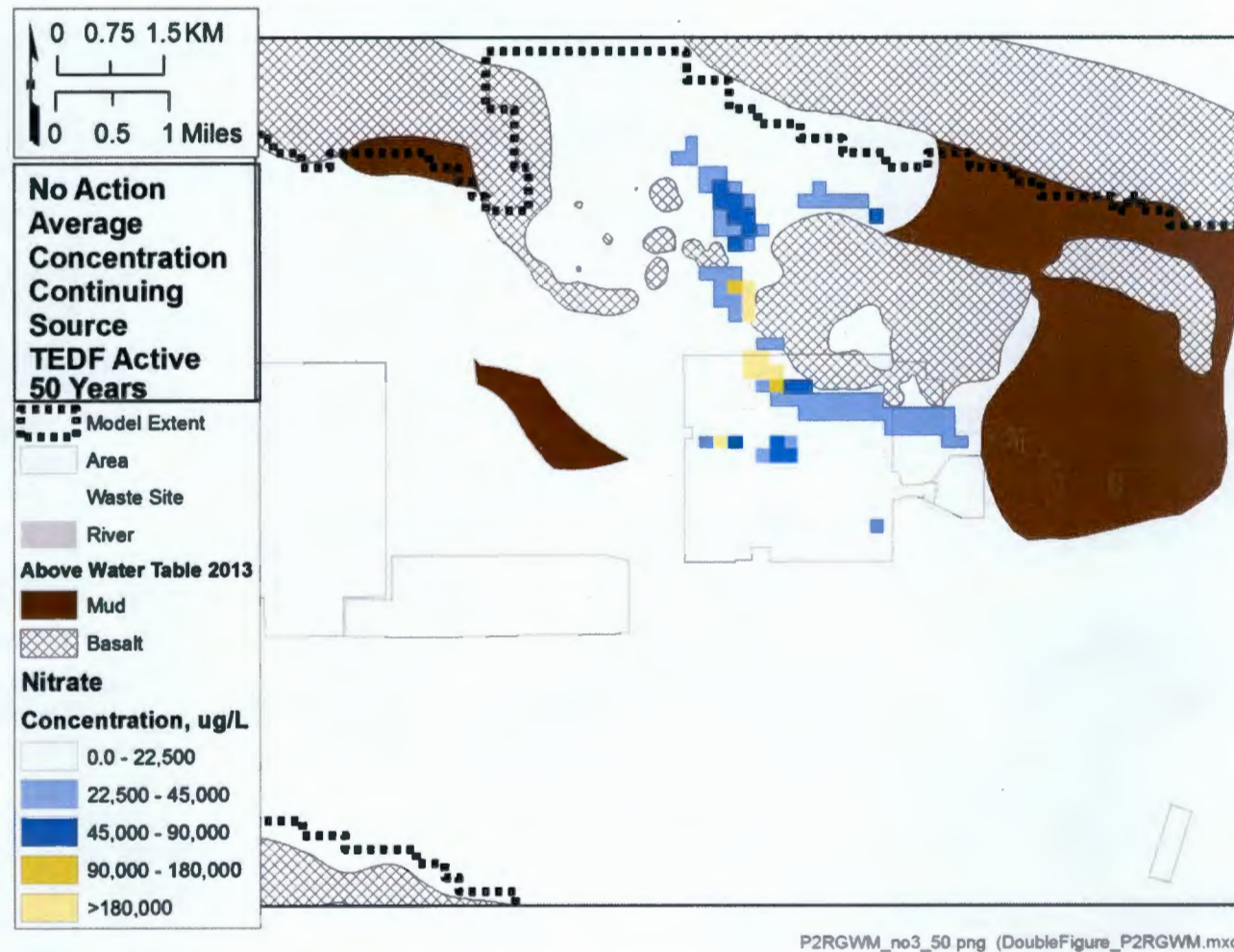


Figure B-390 - Plan view contours of the nitrate plume at simulation time 50 years based on the continuing source with TEDF future use simulation using average concentration initial conditions

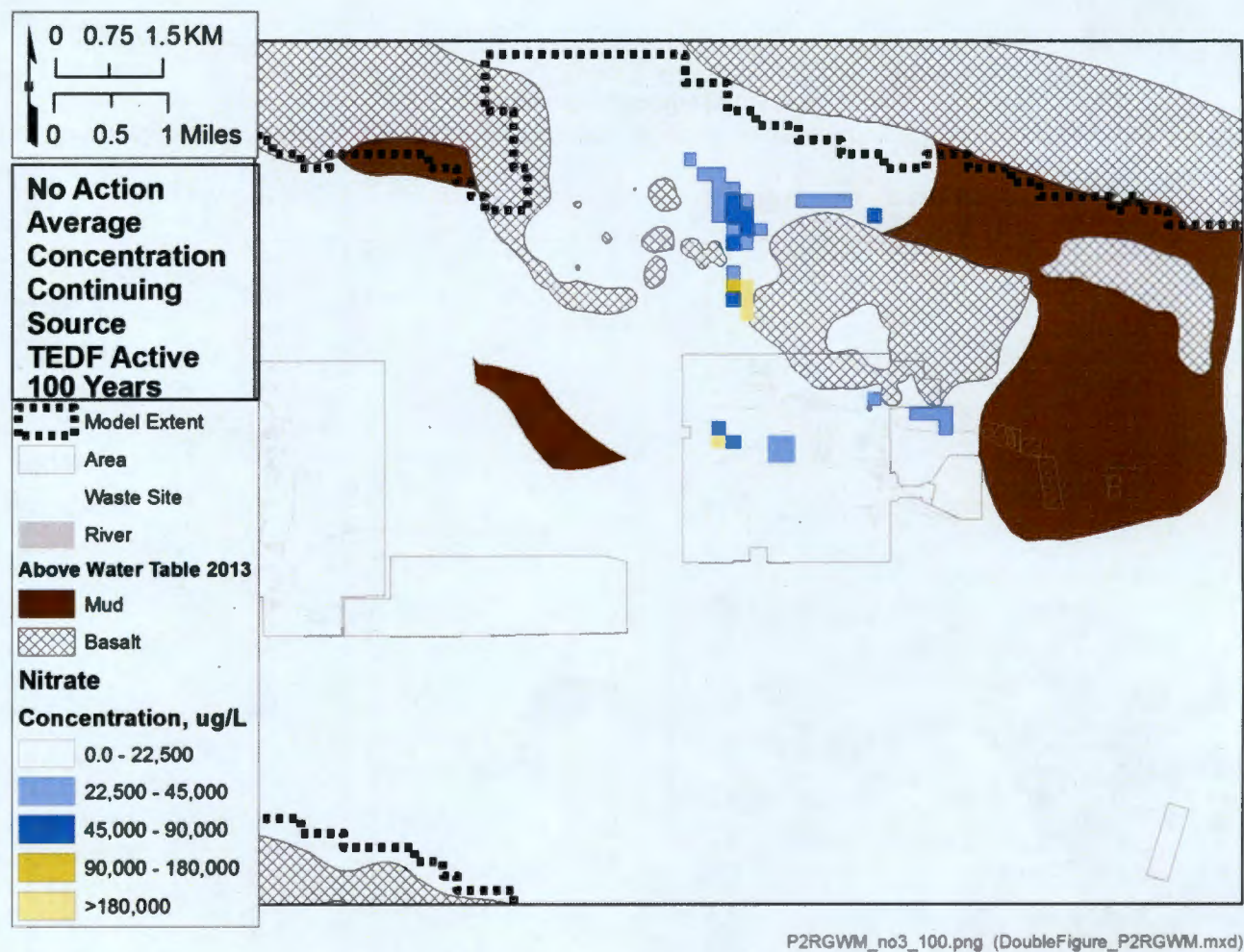


Figure B-391 - Plan view contours of the nitrate plume at simulation time 100 years based on the continuing source with TEDF future use simulation using average concentration initial conditions

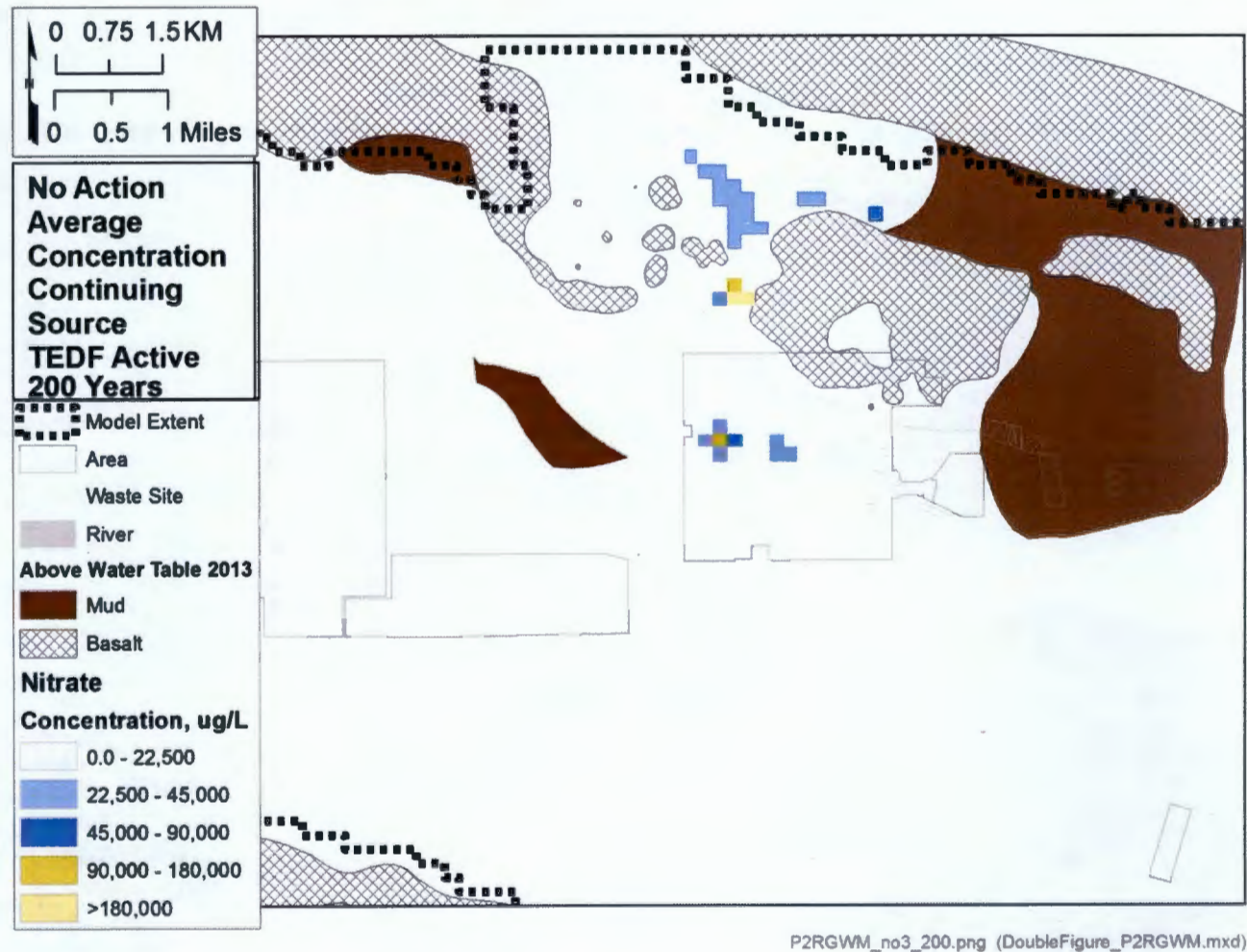


Figure B-392 - Plan view contours of the nitrate plume at simulation time 200 years based on the continuing source with TEDF future use simulation using average concentration initial conditions

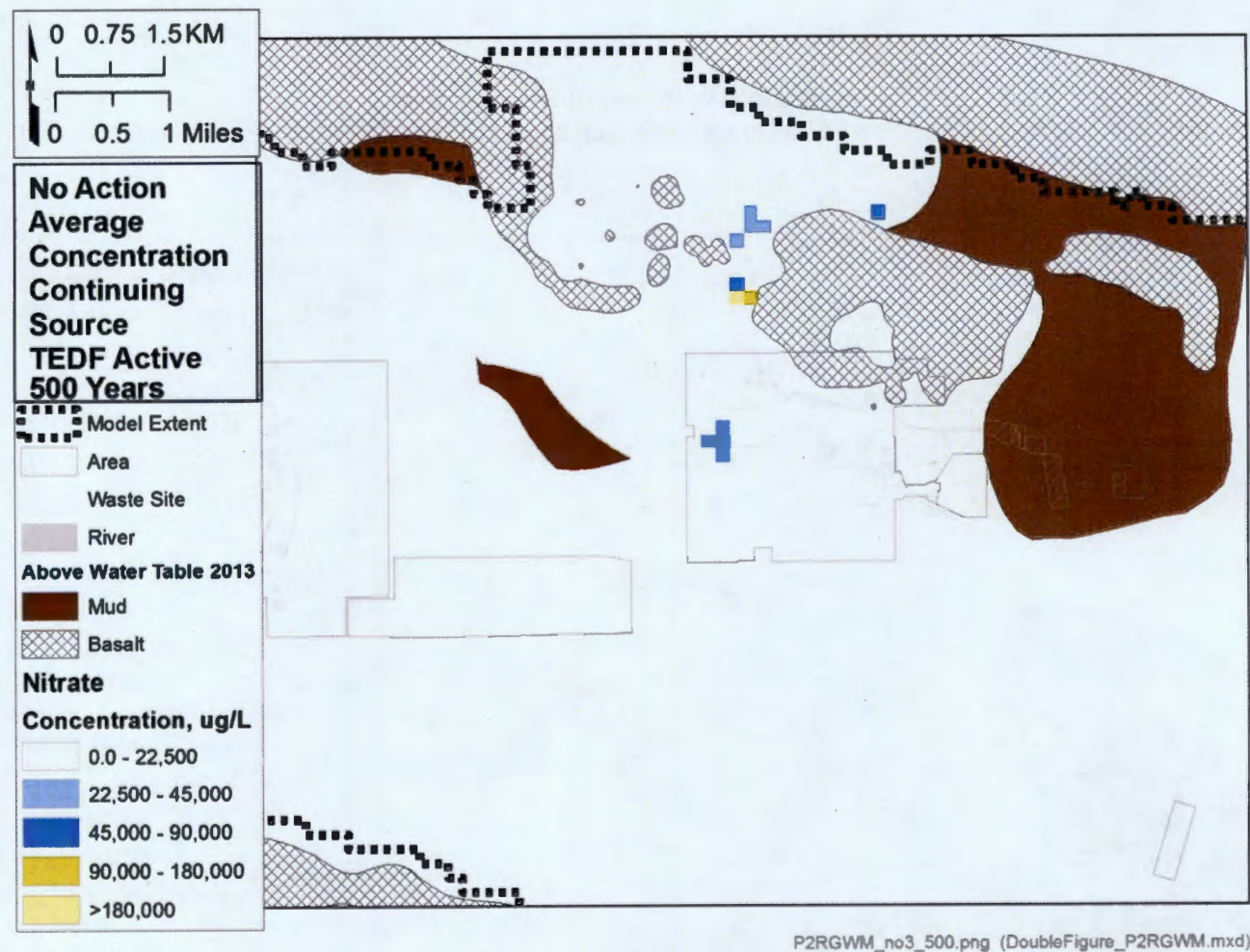


Figure B-393 - Plan view contours of the nitrate plume at simulation time 500 years based on the continuing source with TEDF future use simulation using average concentration initial conditions

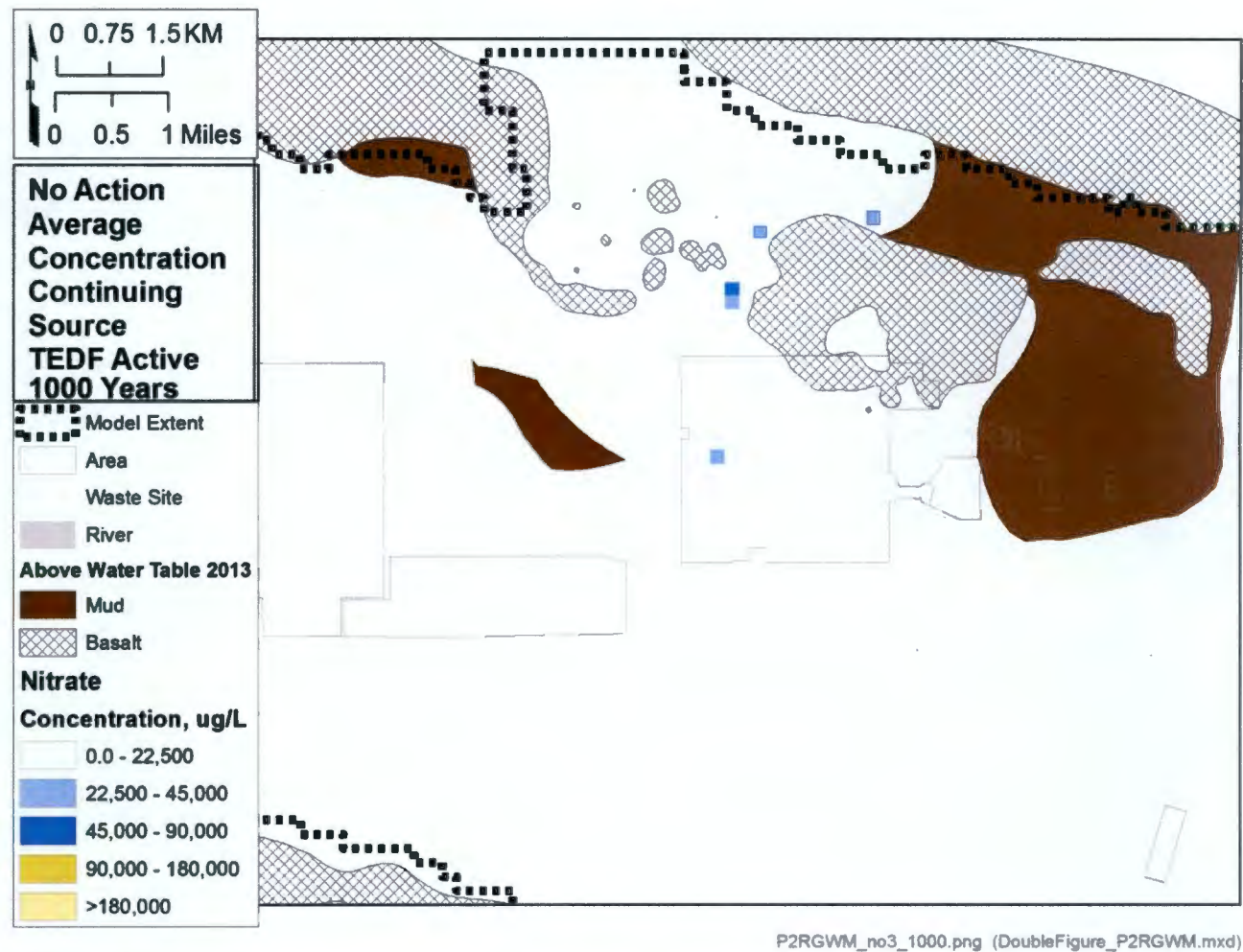


Figure B-394 - Plan view contours of the nitrate plume at simulation time 1000 years based on the continuing source with TEDF future use simulation using average concentration initial conditions

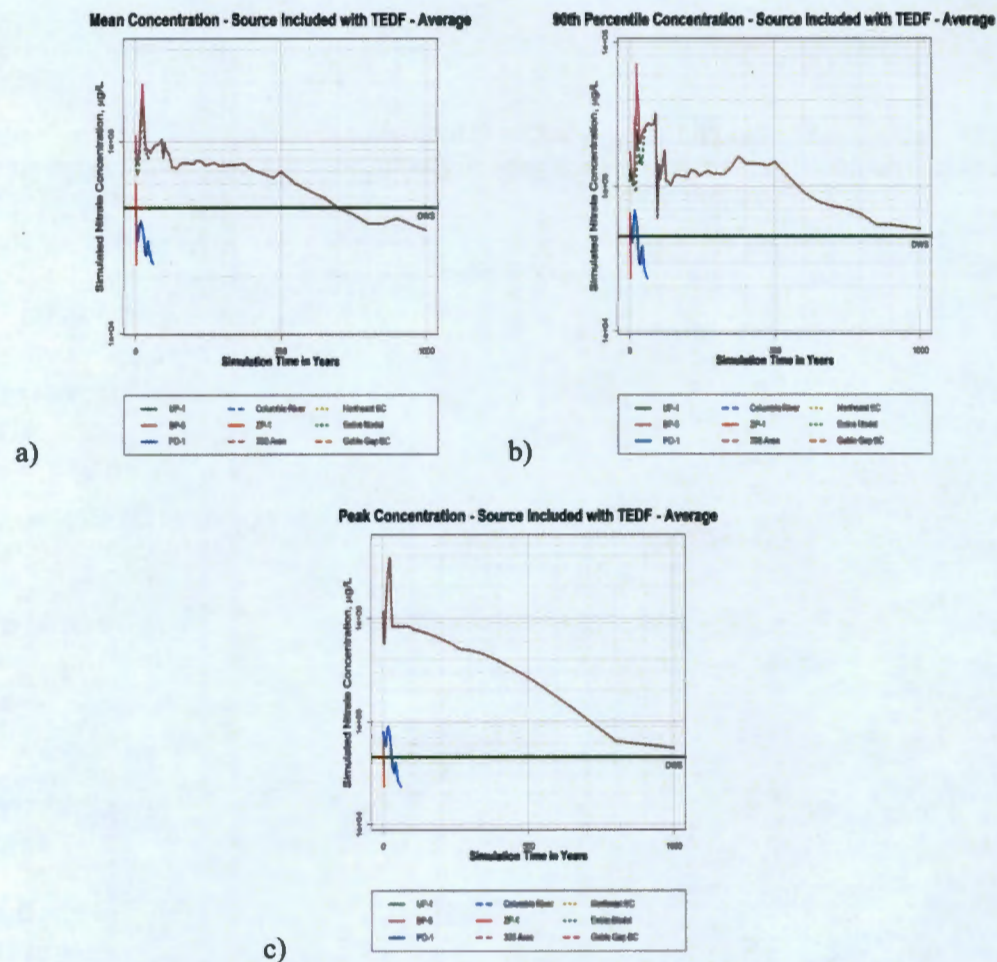


Figure B-395 - Statistical summary of simulated concentration within subregions of the model domain for the nitrate plume for the continuing source with TEDF future use simulation using average concentration initial conditions.

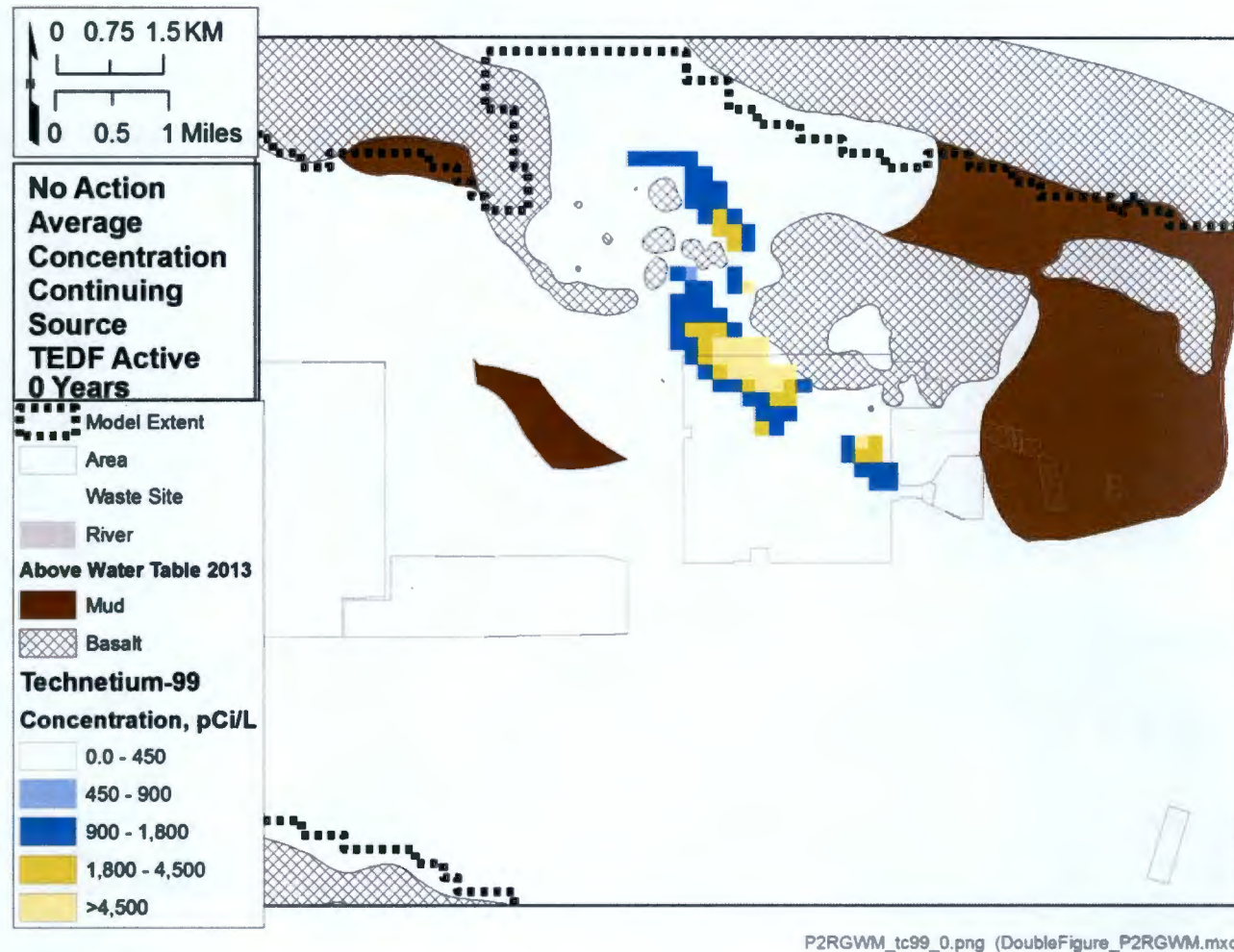


Figure B-396 - Plan view contours of the technetium-99 plume at simulation time 0 years based on the continuing source with TEDF future use simulation using average concentration initial conditions

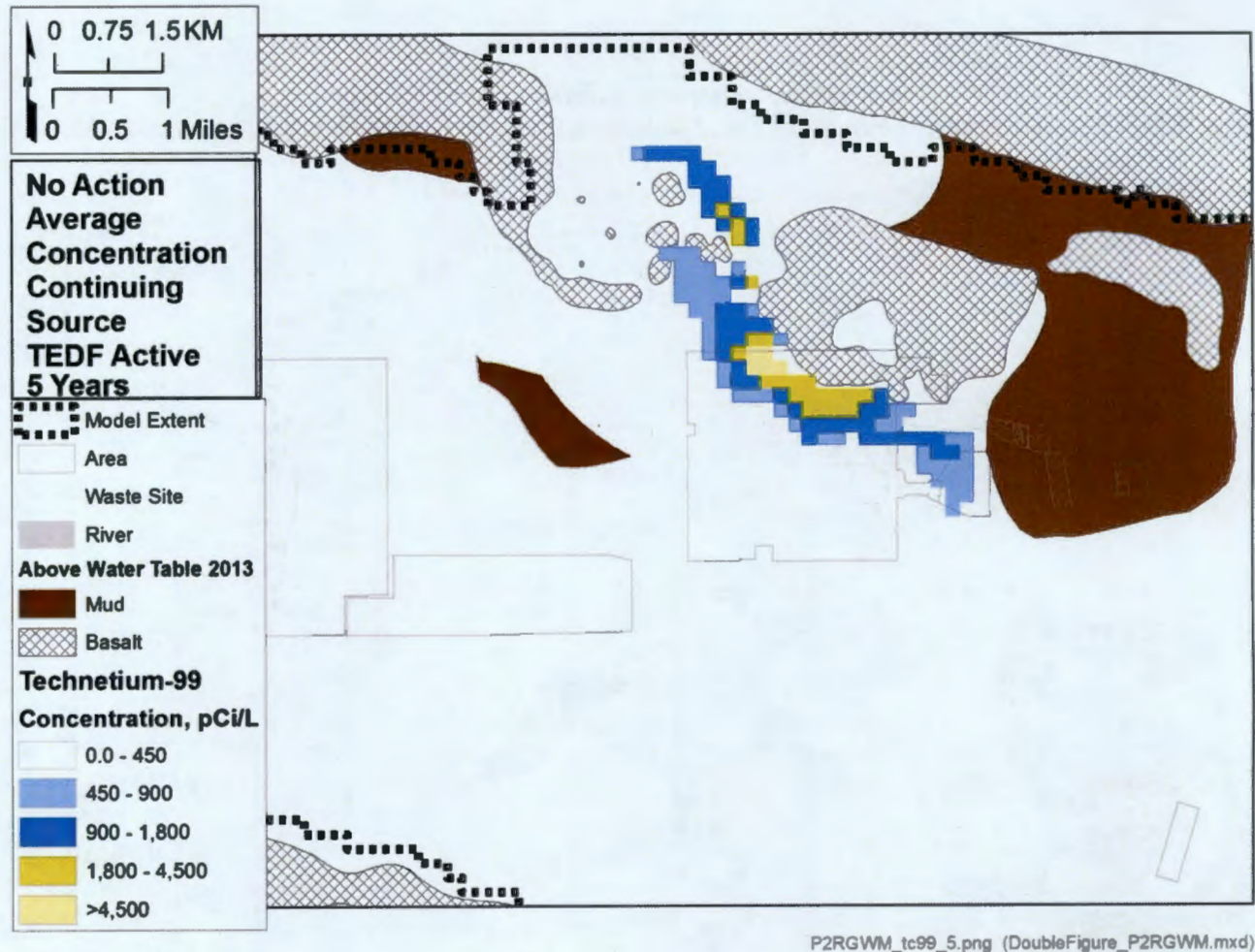
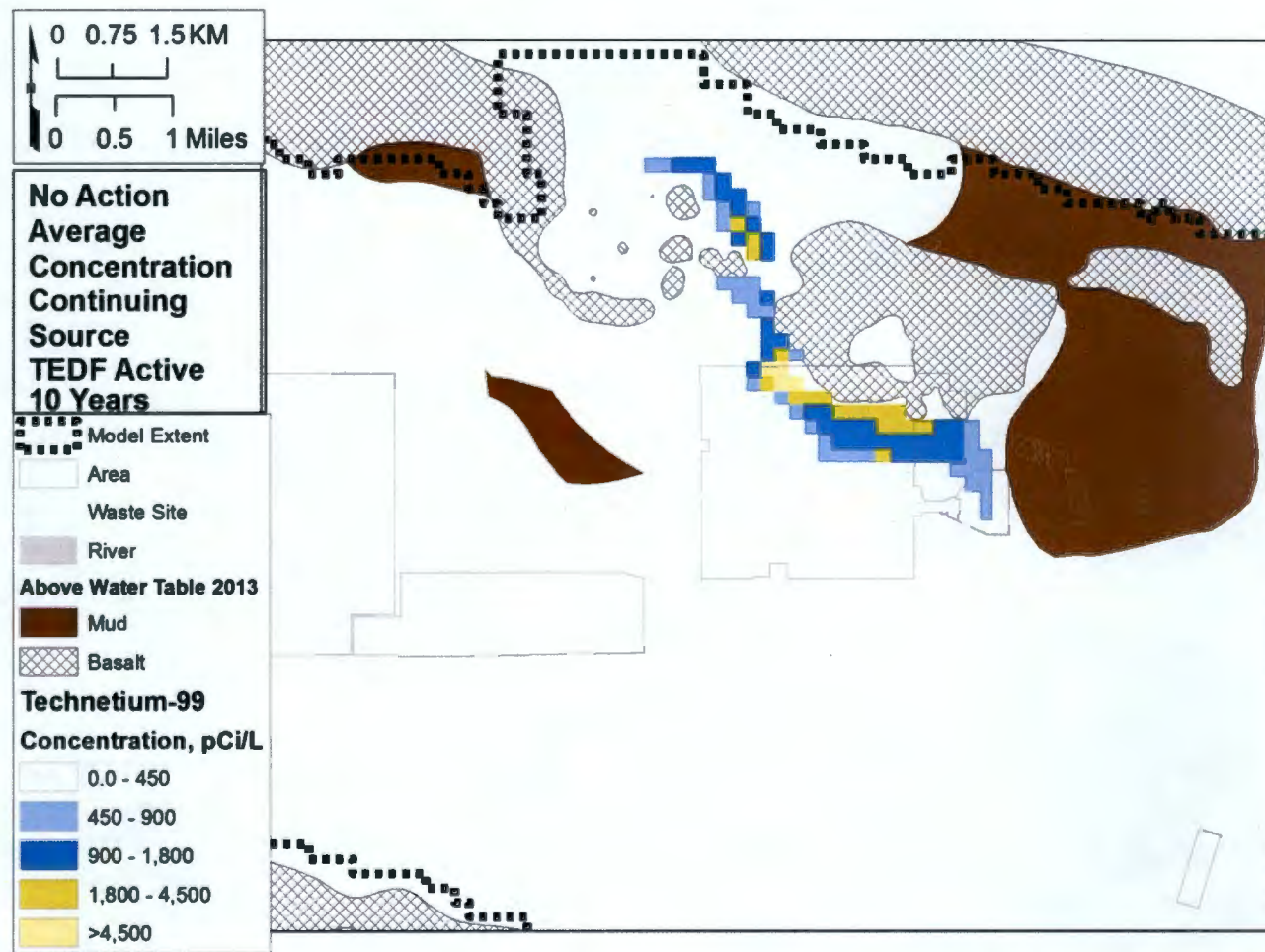


Figure B-397 - Plan view contours of the technetium-99 plume at simulation time 5 years based on the continuing source with TEDF future use simulation using average concentration initial conditions



P2RGWM_tc99_10.png (DoubleFigure_P2RGWM.mxd)

Figure B-398 - Plan view contours of the technetium-99 plume at simulation time 10 years based on the continuing source with TEDF future use simulation using average concentration initial conditions

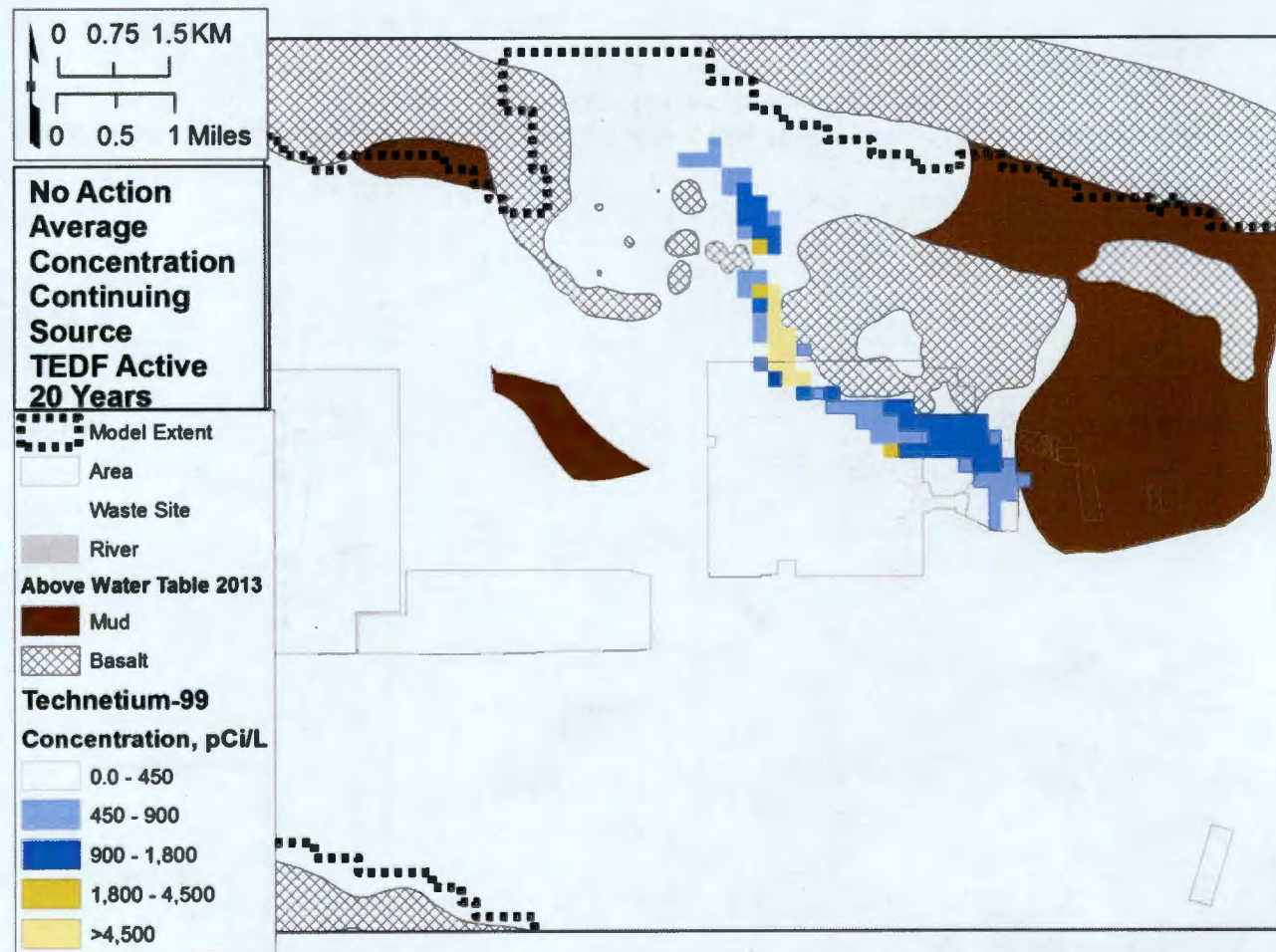


Figure B-399 - Plan view contours of the technetium-99 plume at simulation time 20 years based on the continuing source with TEDF future use simulation using average concentration initial conditions

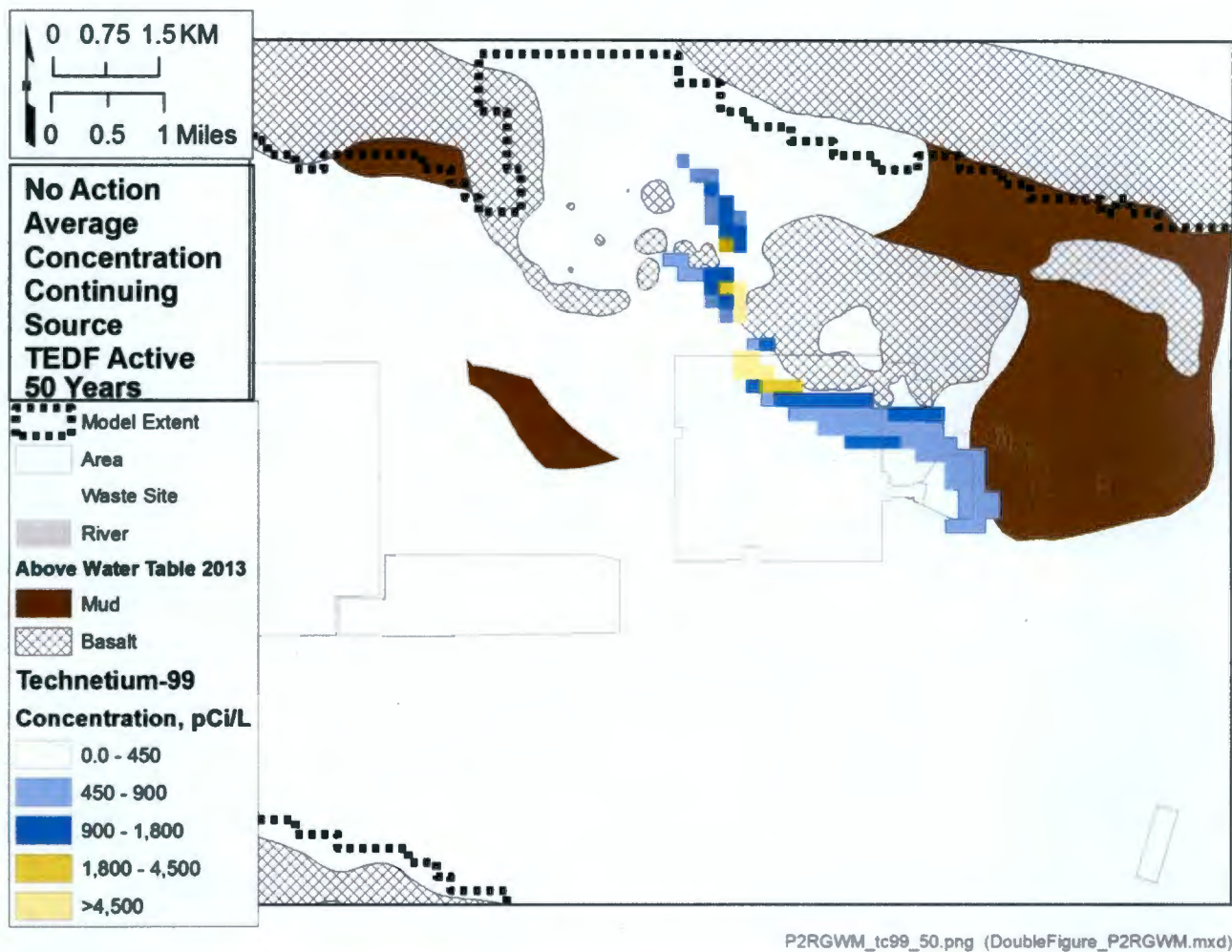


Figure B-400 - Plan view contours of the technetium-99 plume at simulation time 50 years based on the continuing source with TEDF future use simulation using average concentration initial conditions

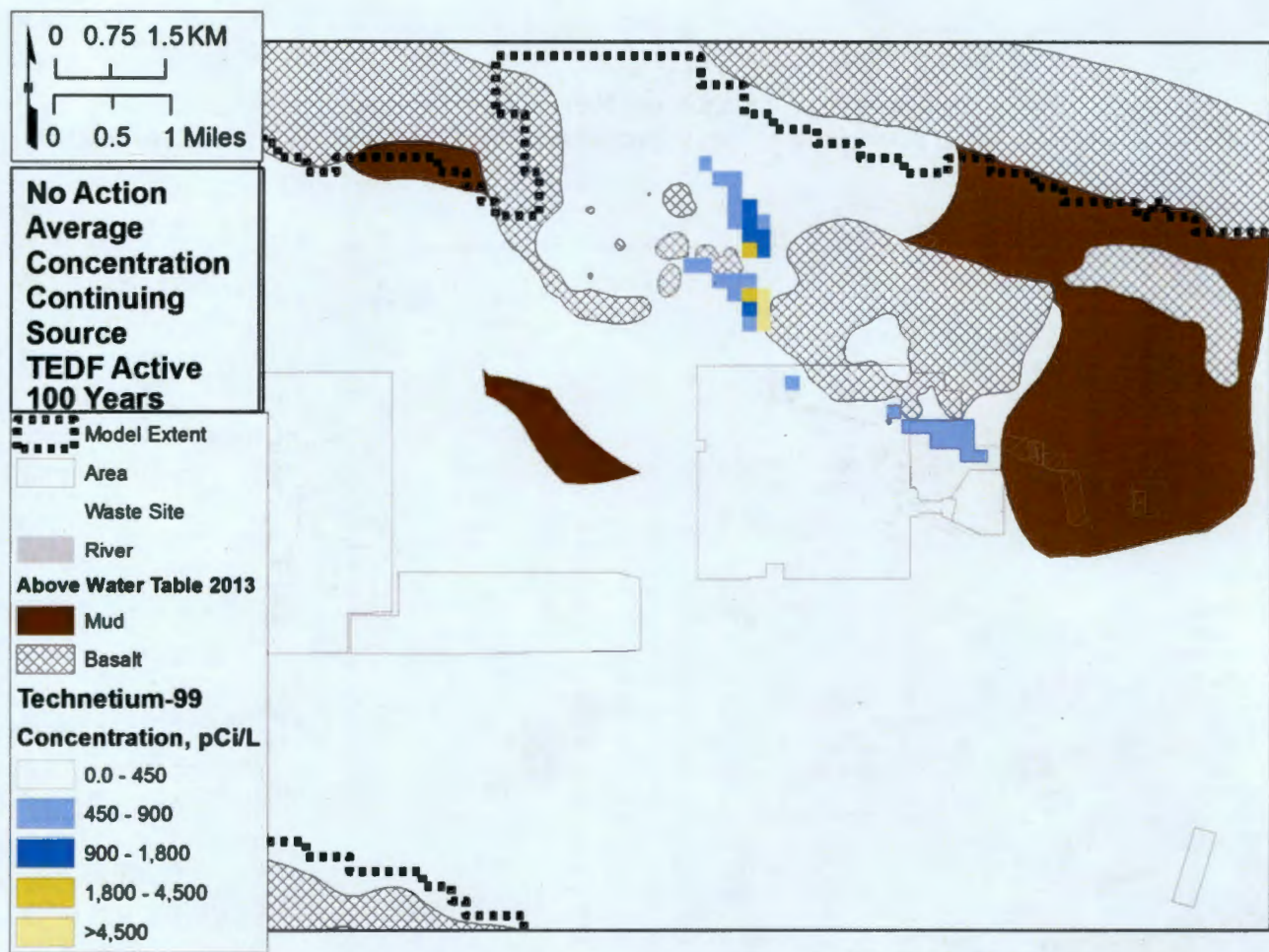
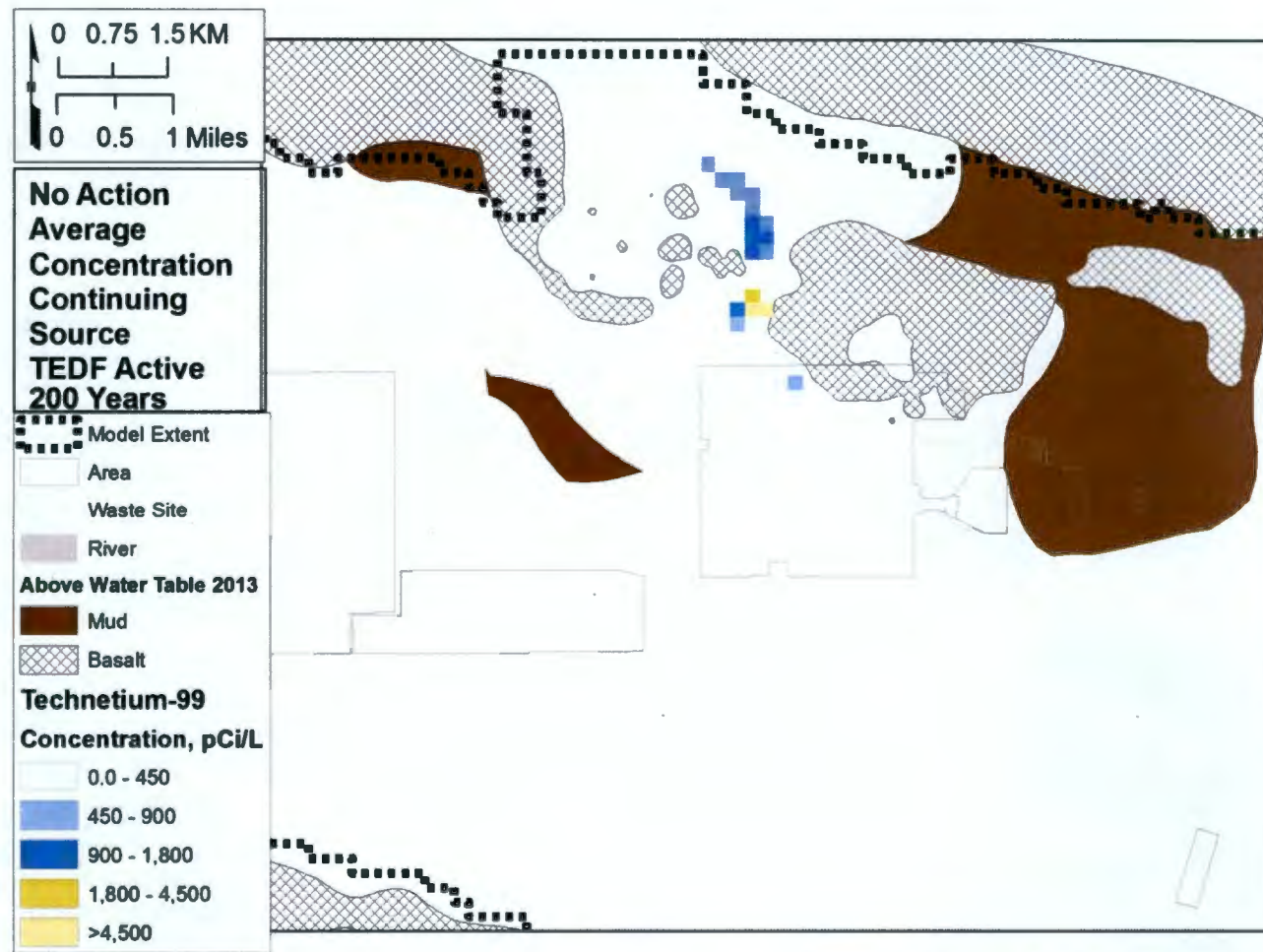


Figure B-401 - Plan view contours of the technetium-99 plume at simulation time 100 years based on the continuing source with TEDF future use simulation using average concentration initial conditions



P2RGWM_tc99_200.png (DoubleFigure_P2RGWM.mxd)

Figure B-402 - Plan view contours of the technetium-99 plume at simulation time 200 years based on the continuing source with TEDF future use simulation using average concentration initial conditions

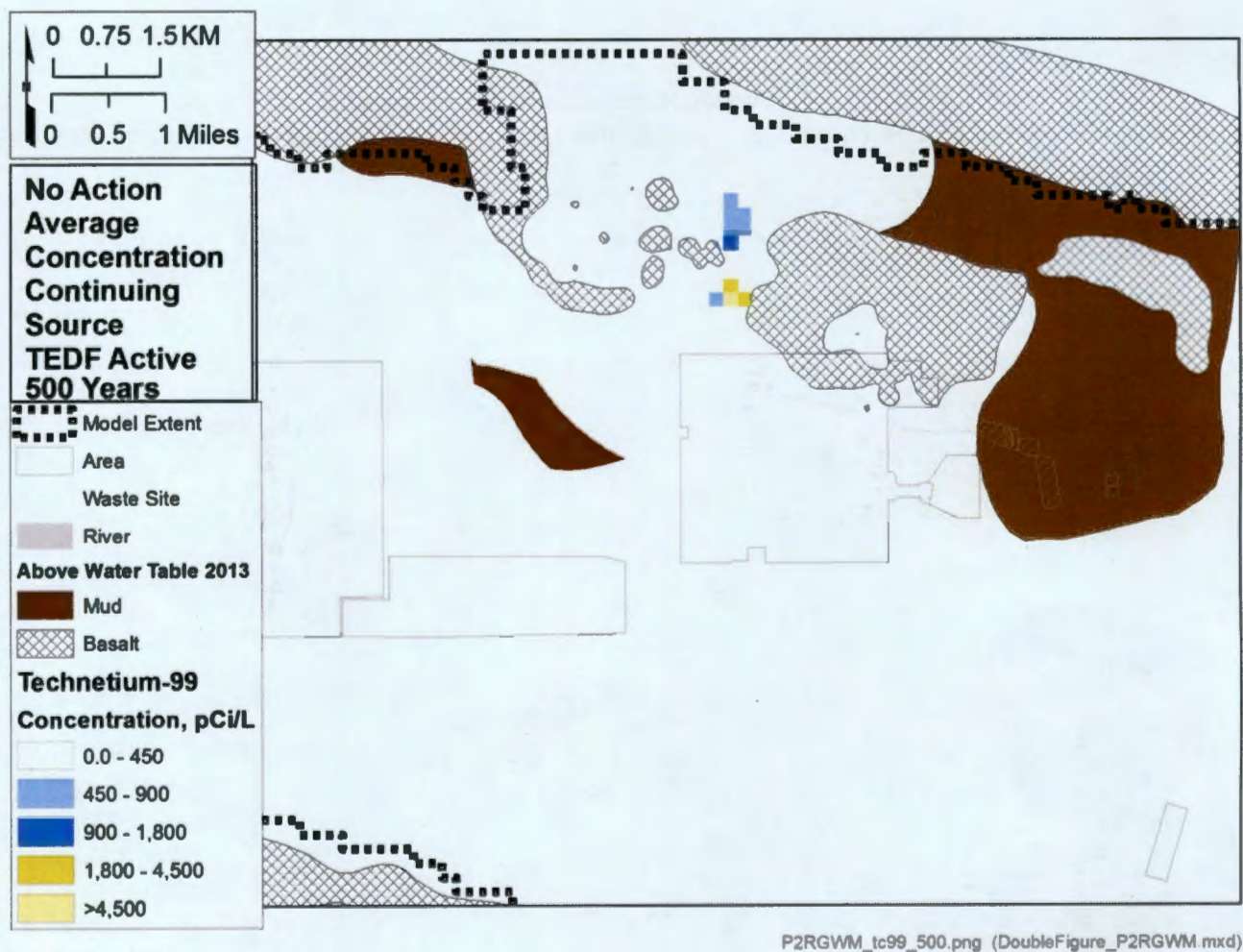
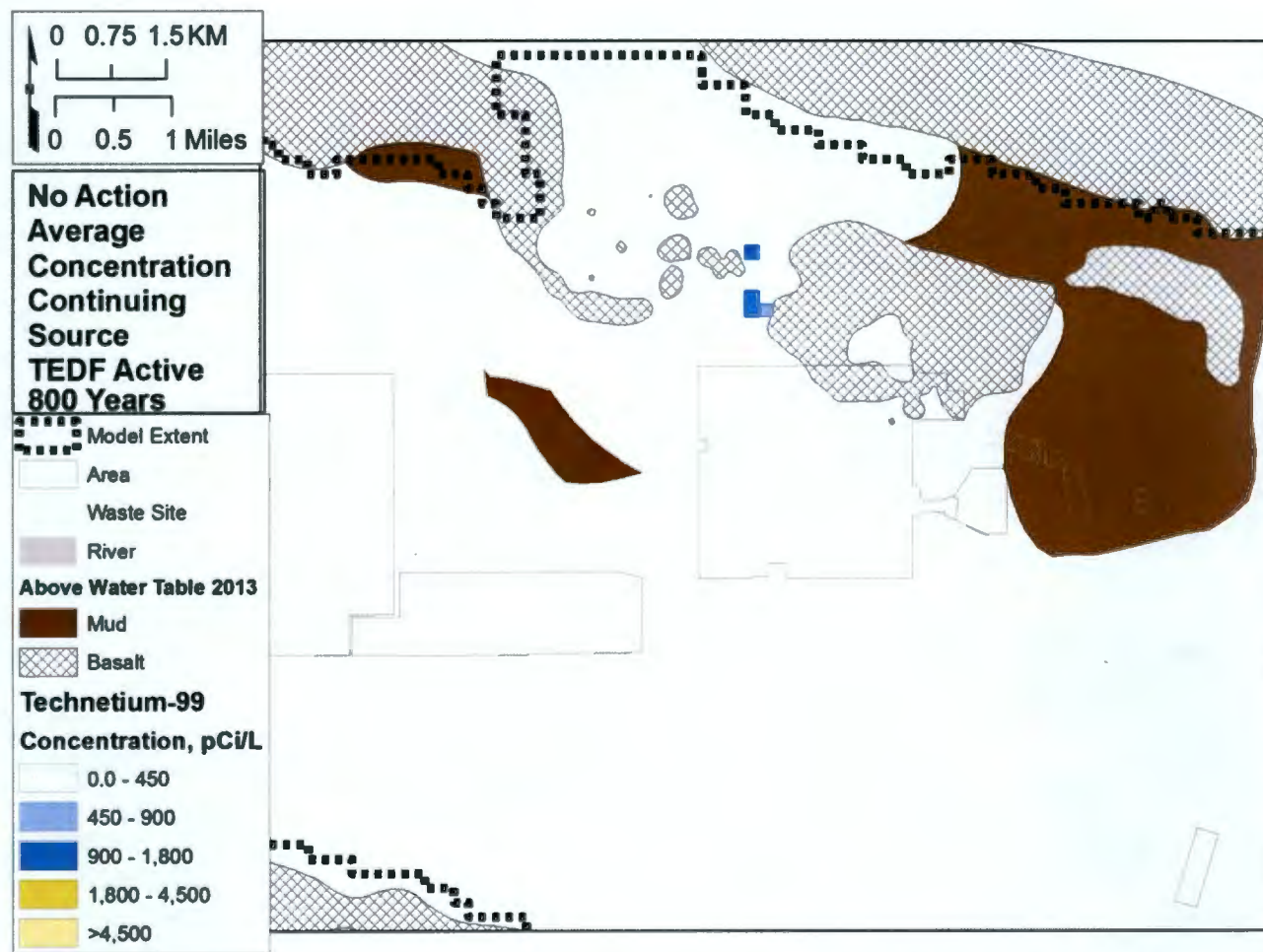
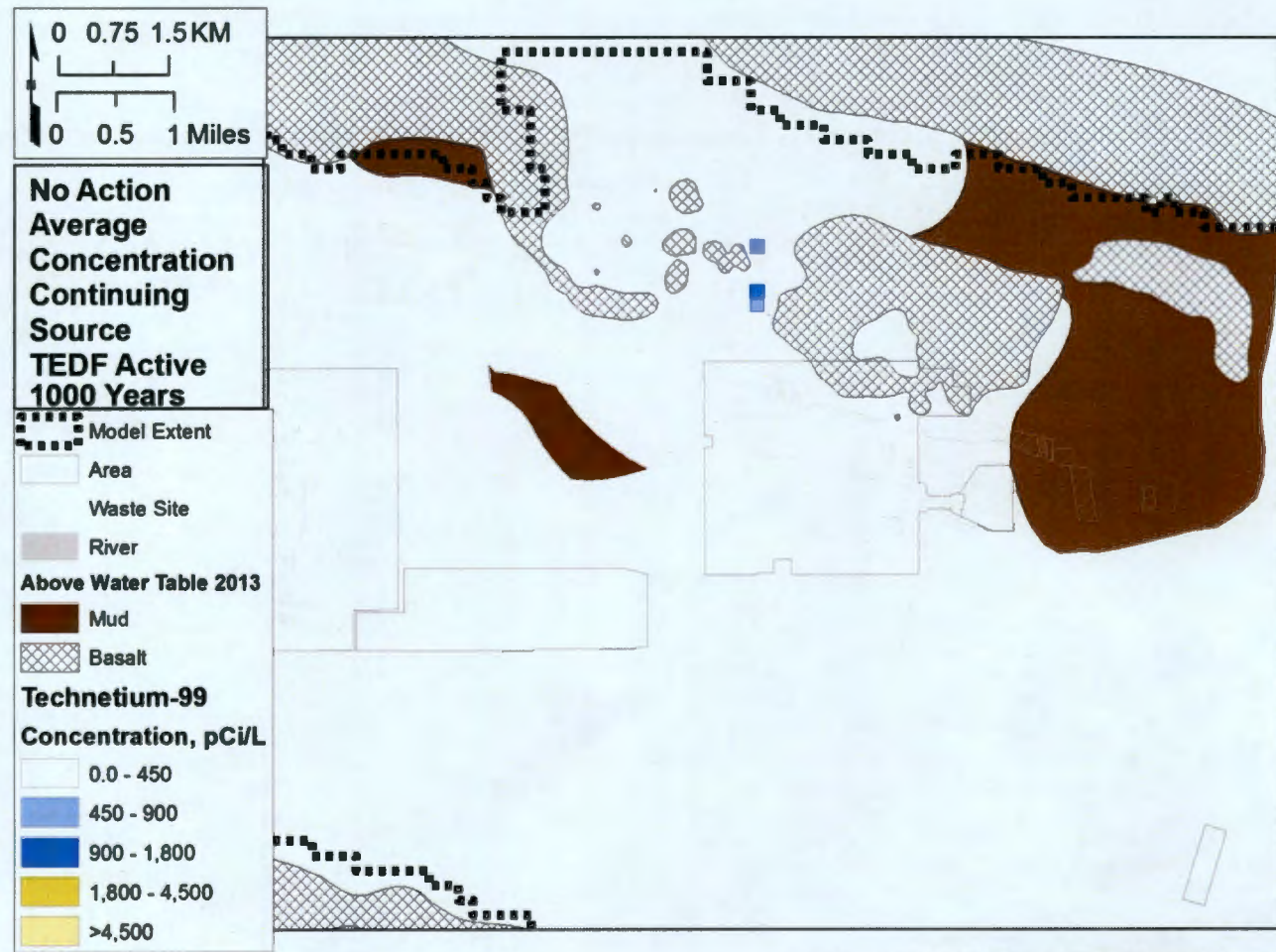


Figure B-403 - Plan view contours of the technetium-99 plume at simulation time 500 years based on the continuing source with TEDF future use simulation using average concentration initial conditions



P2RGWM_tc99_800.png (DoubleFigure_P2RGWM.mxd)

Figure B-404 - Plan view contours of the technetium-99 plume at simulation time 800 years based on the continuing source with TEDF future use simulation using average concentration initial conditions



P2RGWM_tc99_1000.png (DoubleFigure_P2RGWM.mxd)

Figure B-405 - Plan view contours of the technetium-99 plume at simulation time 1000 years based on the continuing source with TEDF future use simulation using average concentration initial conditions

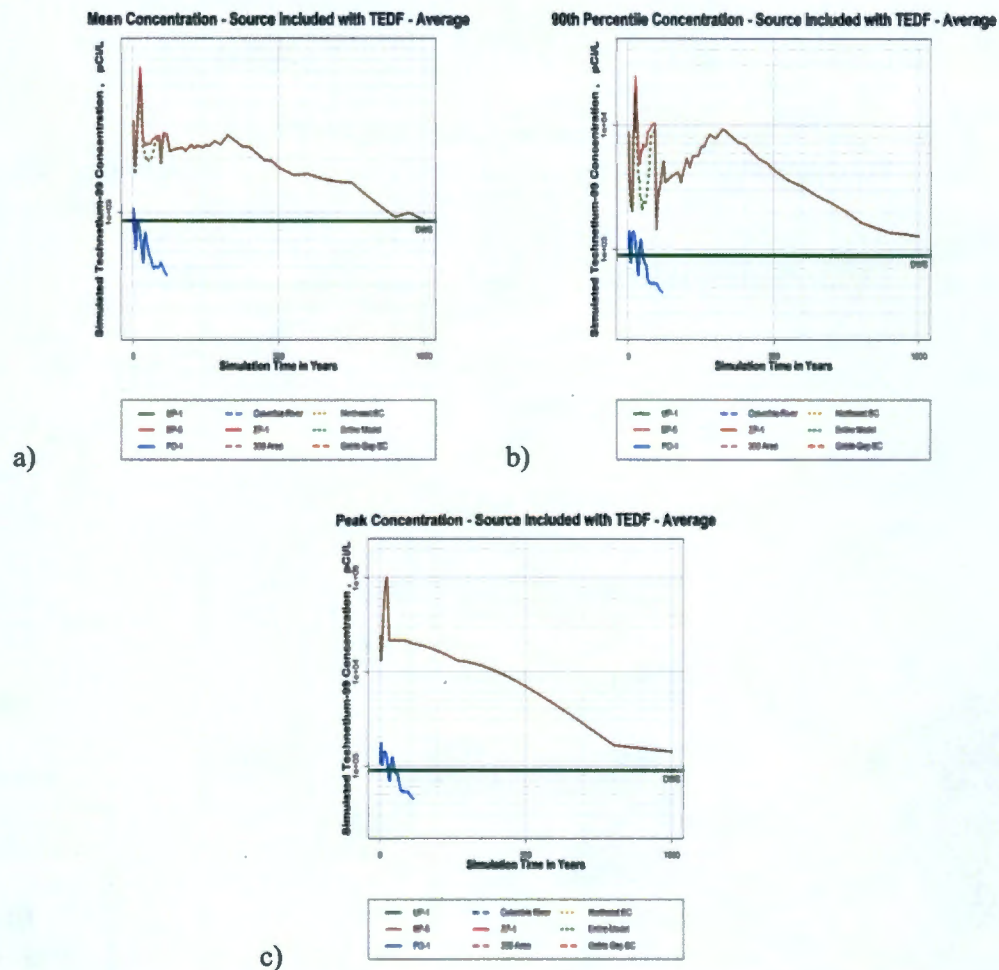


Figure B-406 - Statistical summary of simulated concentration within subregions of the model domain for the technetium-99 plume for the continuing source with TEDF future use simulation using average concentration initial conditions.

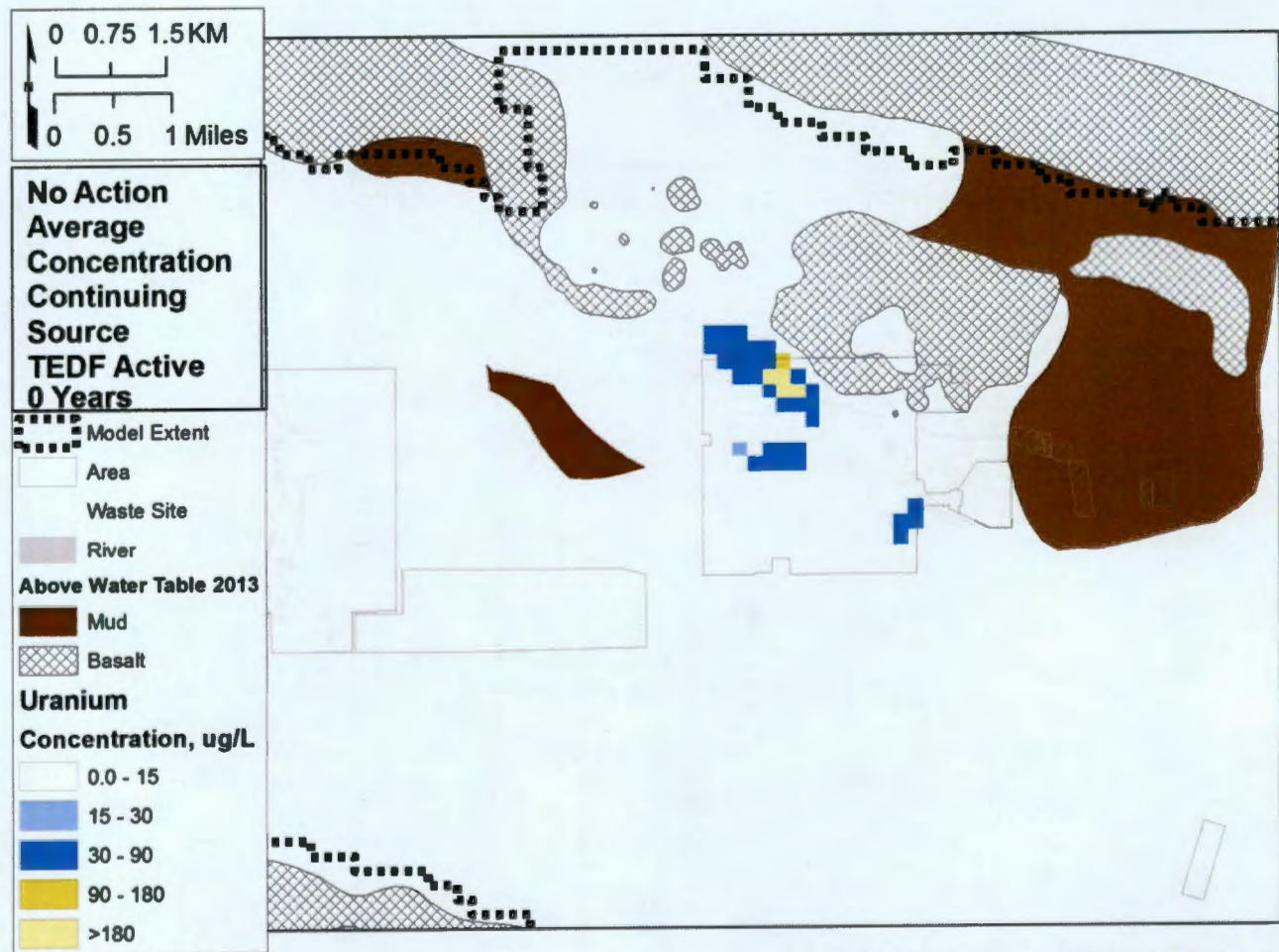


Figure B-407 - Plan view contours of the uranium plume at simulation time 0 years based on the continuing source with TEDF future use simulation using average concentration initial conditions

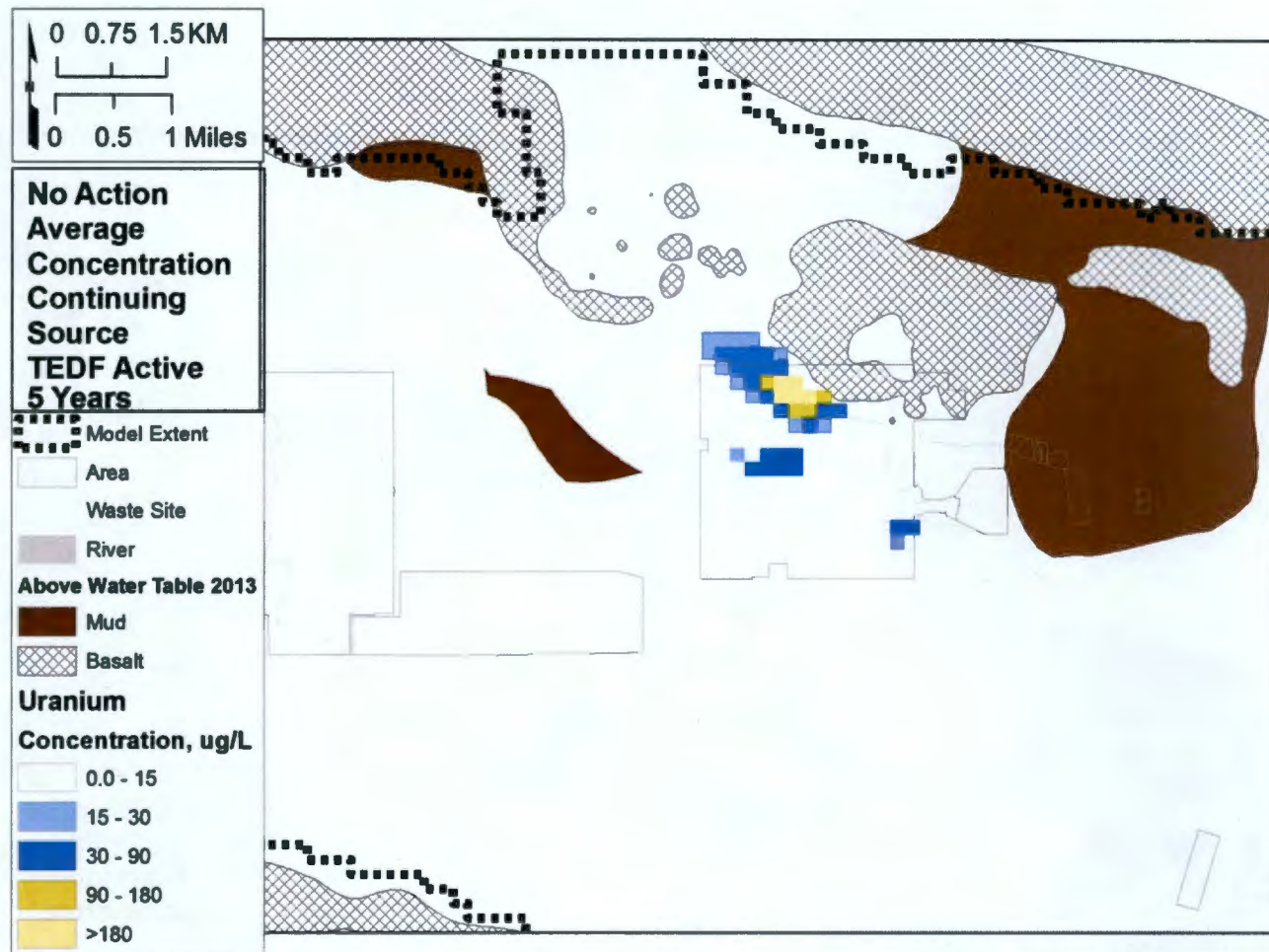
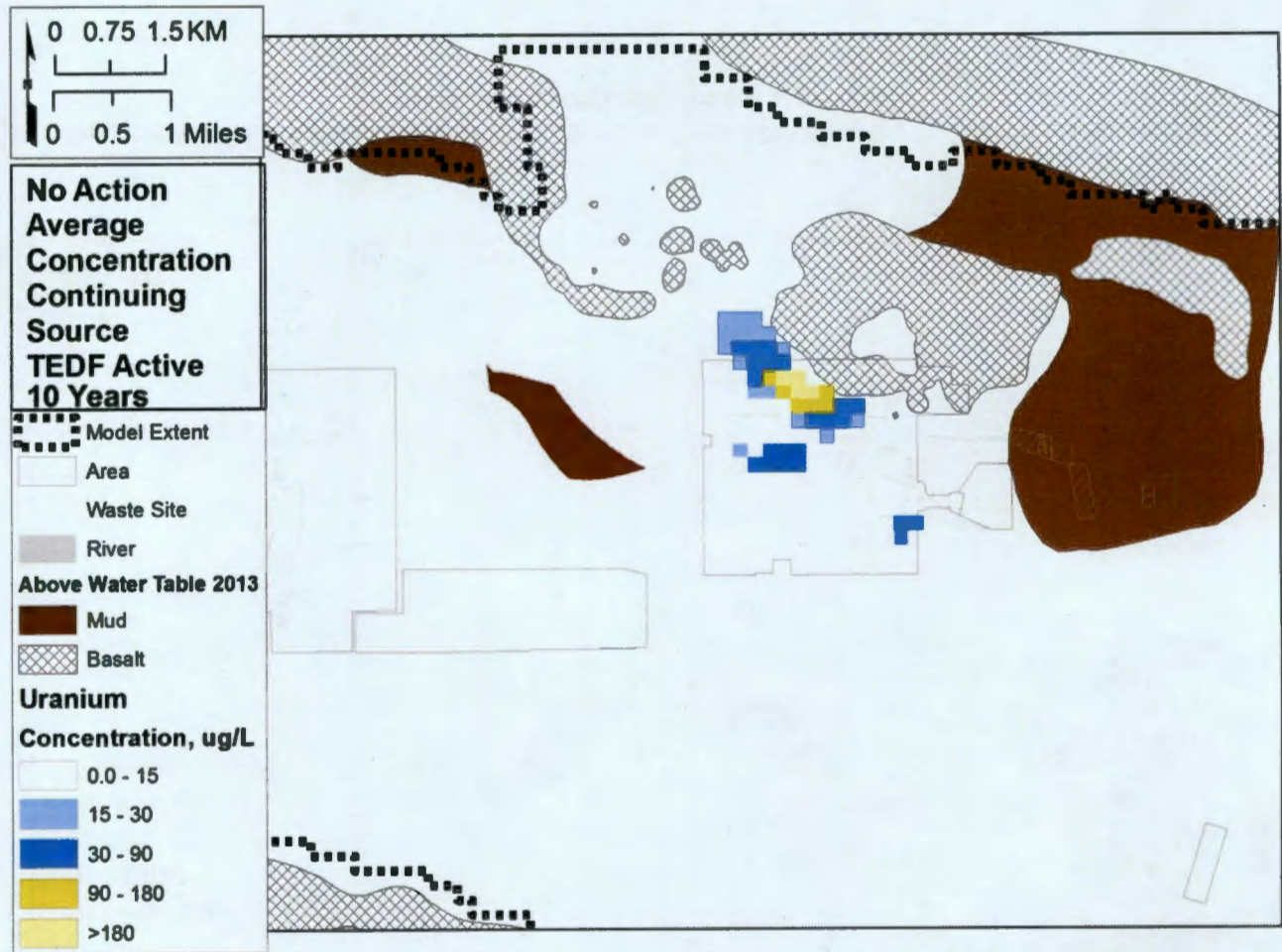


Figure B-408 - Plan view contours of the uranium plume at simulation time 5 years based on the continuing source with TEDF future use simulation using average concentration initial conditions



P2RGWM_u238_10.png (DoubleFigure_P2RGWM.mxd)

Figure B-409 - Plan view contours of the uranium plume at simulation time 10 years based on the continuing source with TEDF future use simulation using average concentration initial conditions

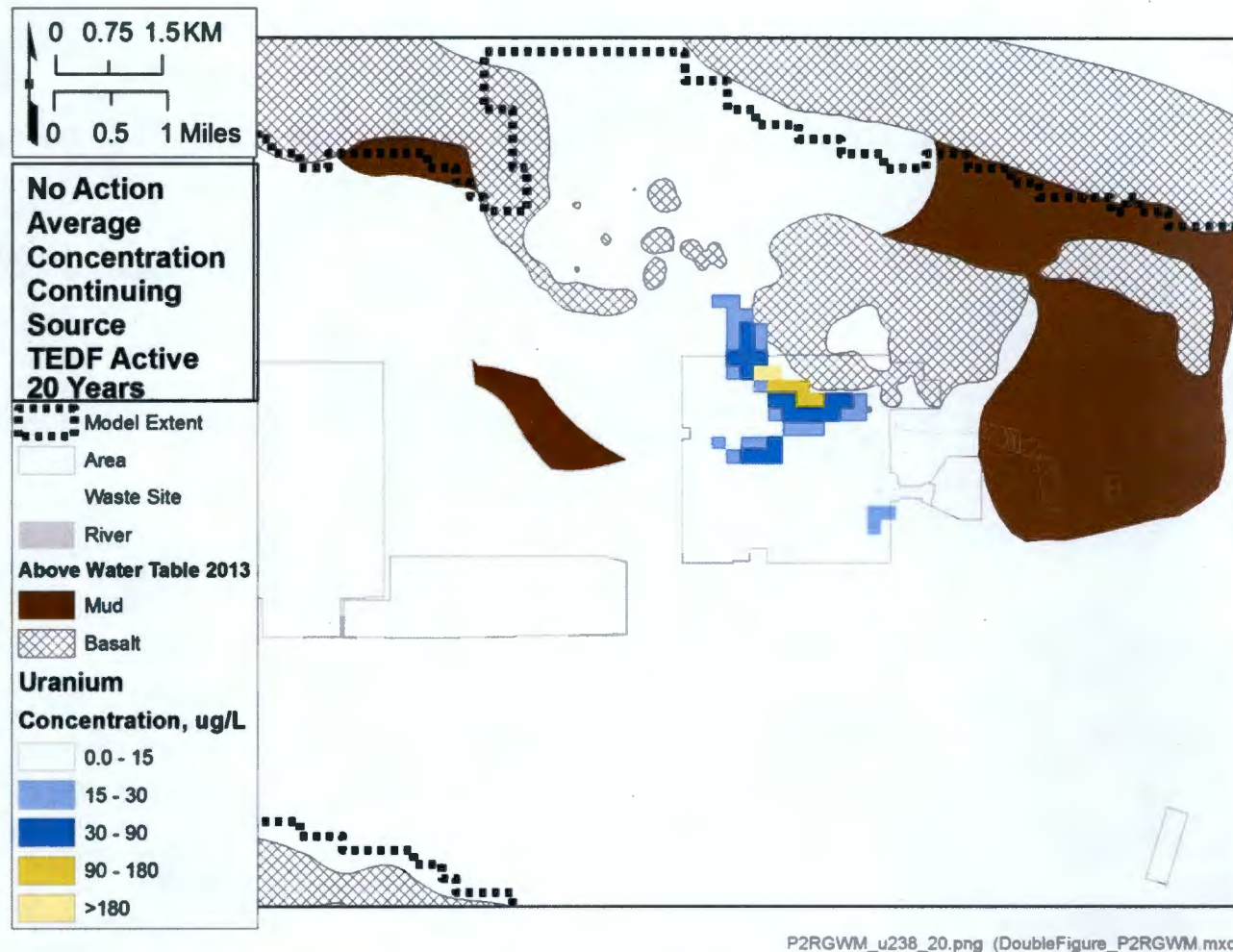
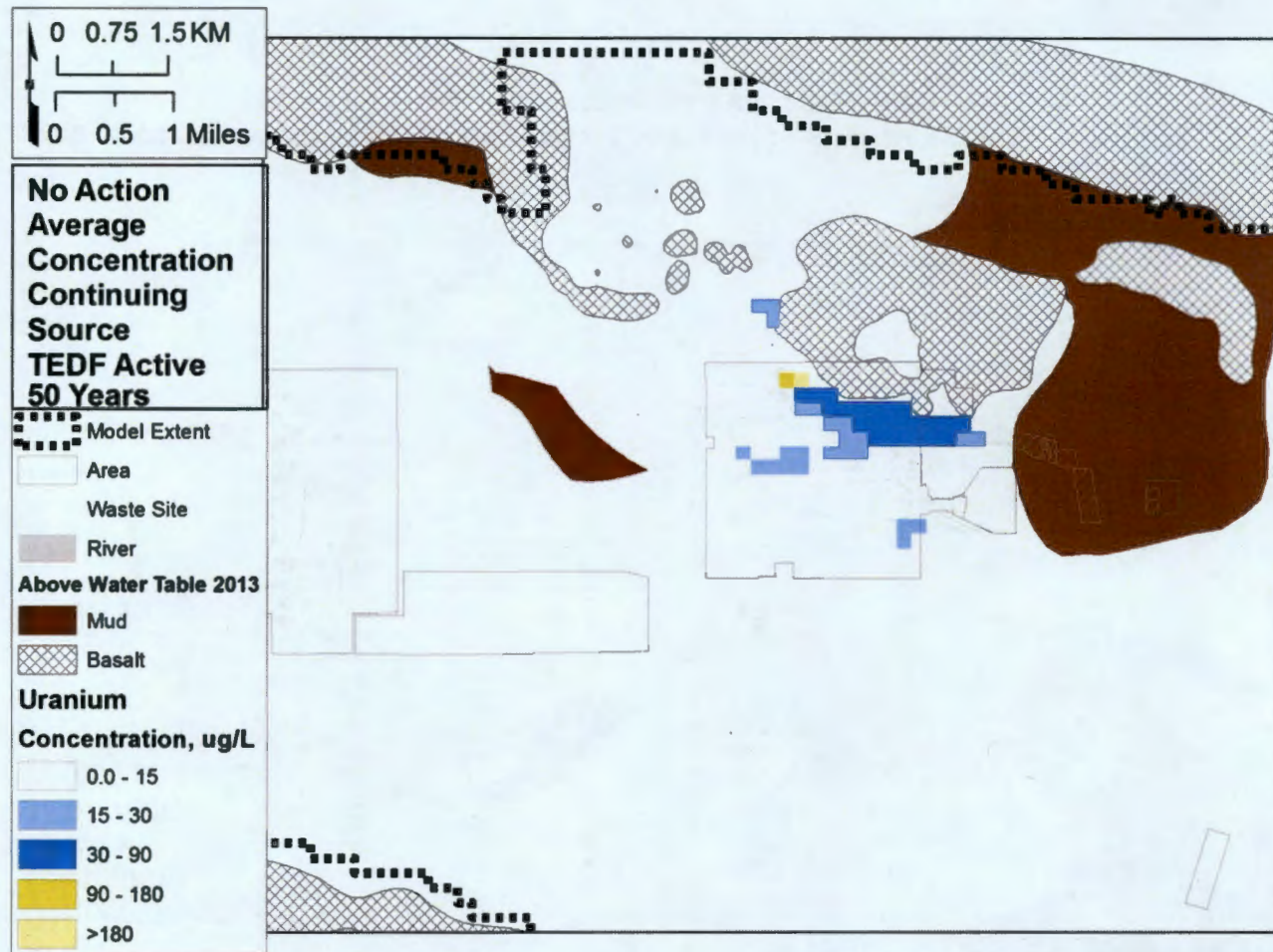
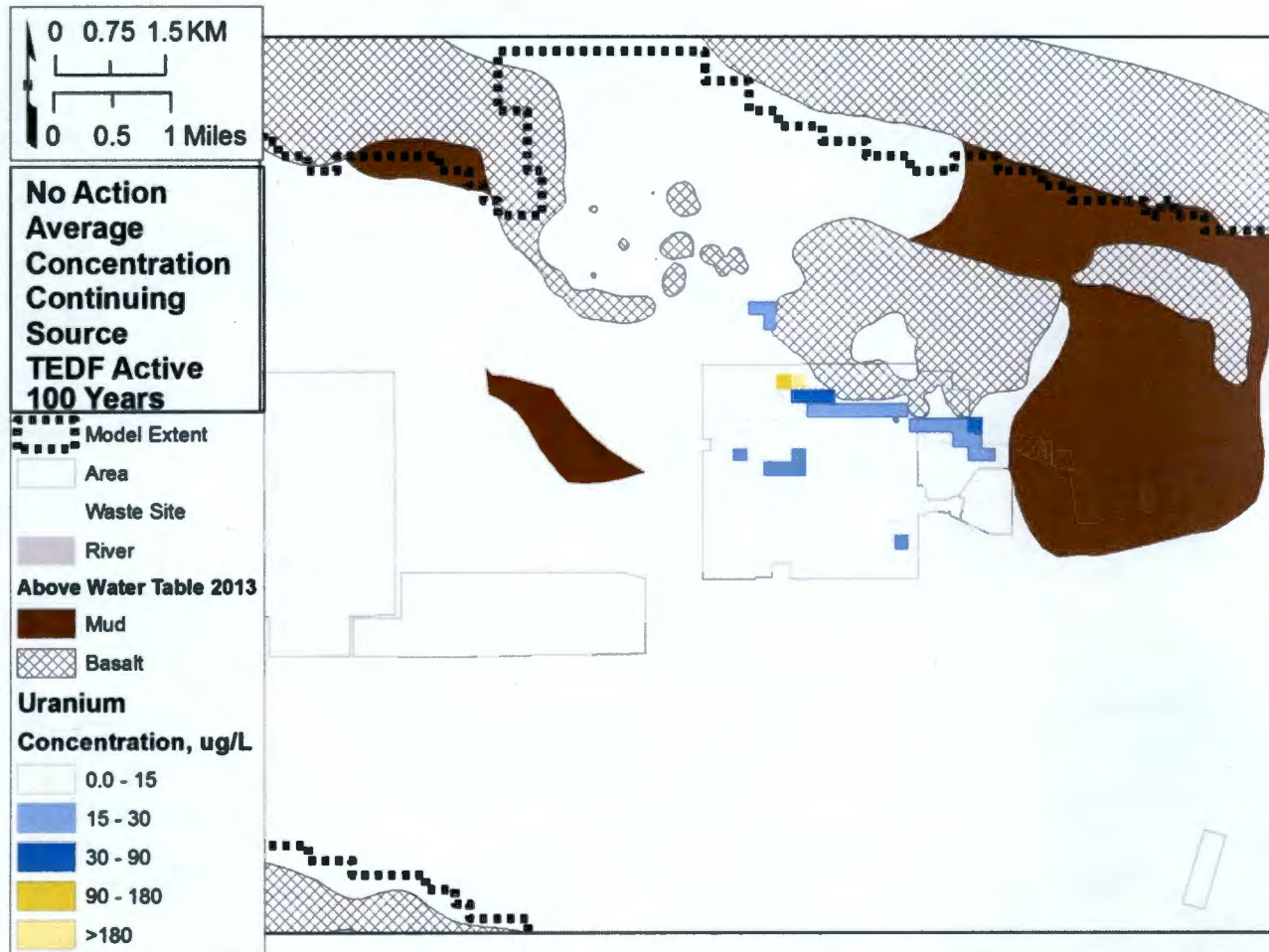


Figure B-410 - Plan view contours of the uranium plume at simulation time 20 years based on the continuing source with TEDF future use simulation using average concentration initial conditions



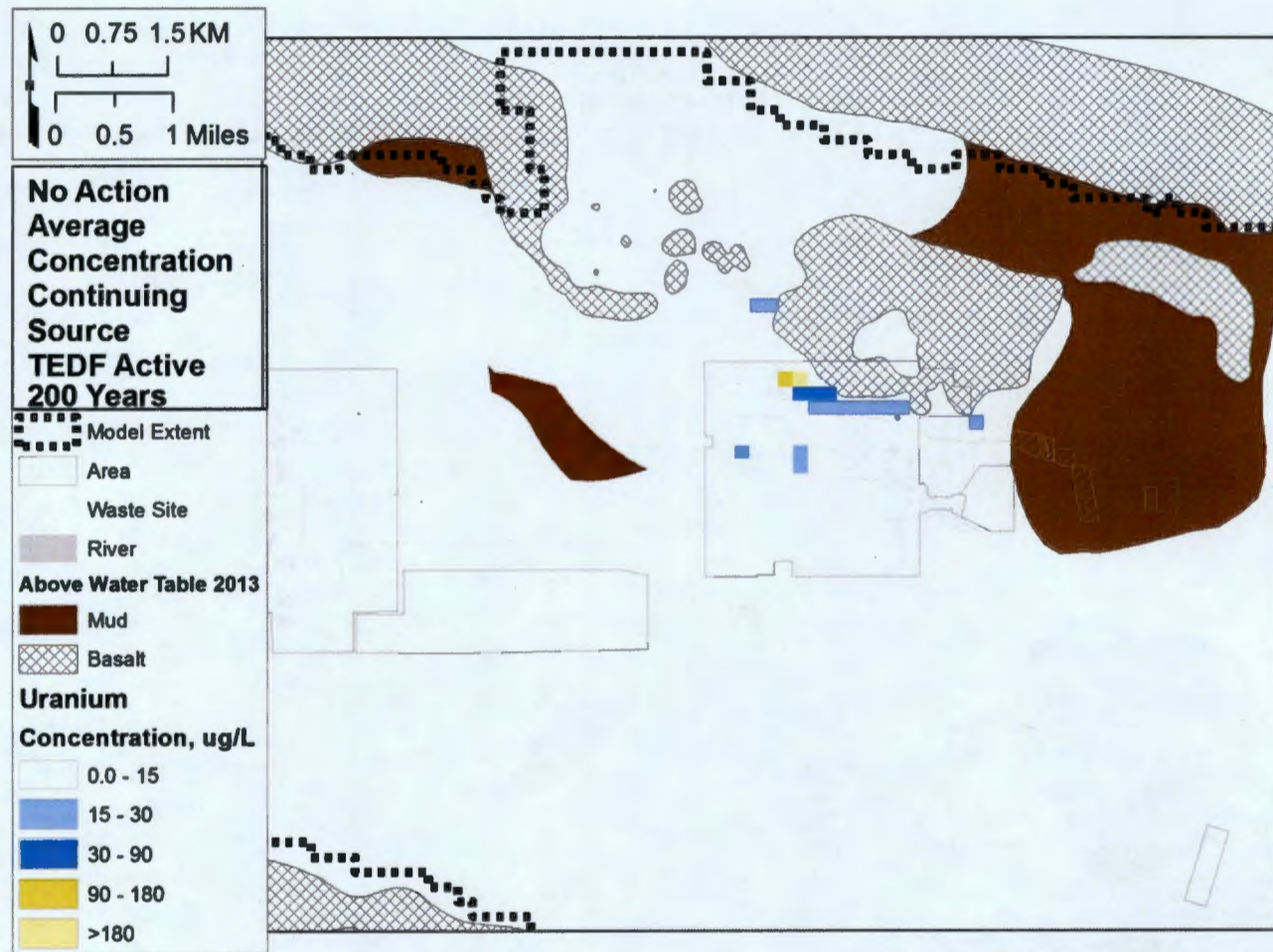
P2RGWM_u238_50.png (DoubleFigure_P2RGWM.mxd)

Figure B-411 - Plan view contours of the uranium plume at simulation time 50 years based on the continuing source with TEDF future use simulation using average concentration initial conditions



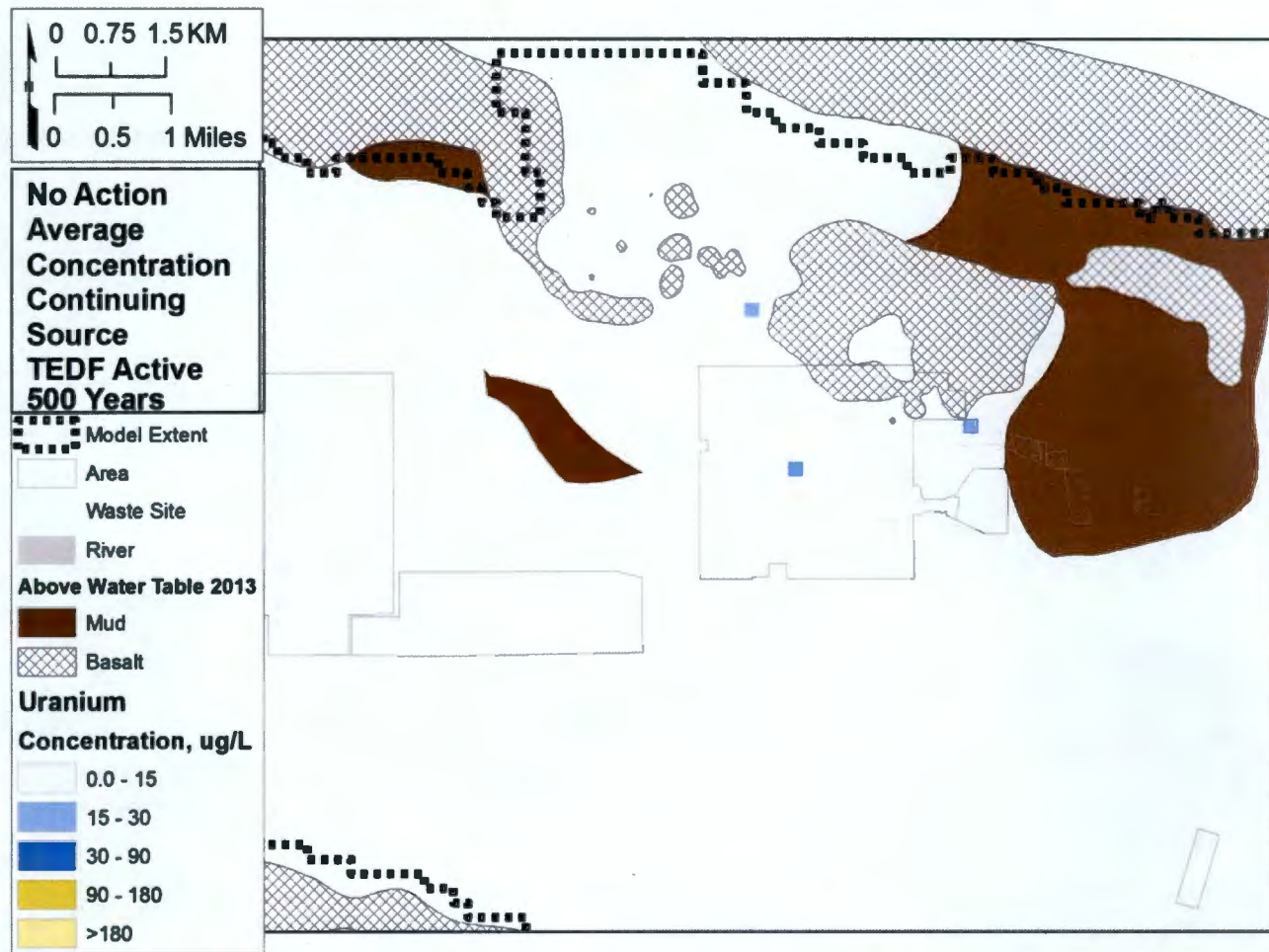
P2RGWM_u238_100.png (DoubleFigure_P2RGWM.mxd)

Figure B-412 - Plan view contours of the uranium plume at simulation time 100 years based on the continuing source with TEDF future use simulation using average concentration initial conditions



P2RGWM_u238_200.png (DoubleFigure_P2RGWM.mxd)

Figure B-413 - Plan view contours of the uranium plume at simulation time 200 years based on the continuing source with TEDF future use simulation using average concentration initial conditions



P2RGWM_u238_500.png (DoubleFigure_P2RGWM.mxd)

Figure B-414 - Plan view contours of the uranium plume at simulation time 500 years based on the continuing source with TEDF future use simulation using average concentration initial conditions

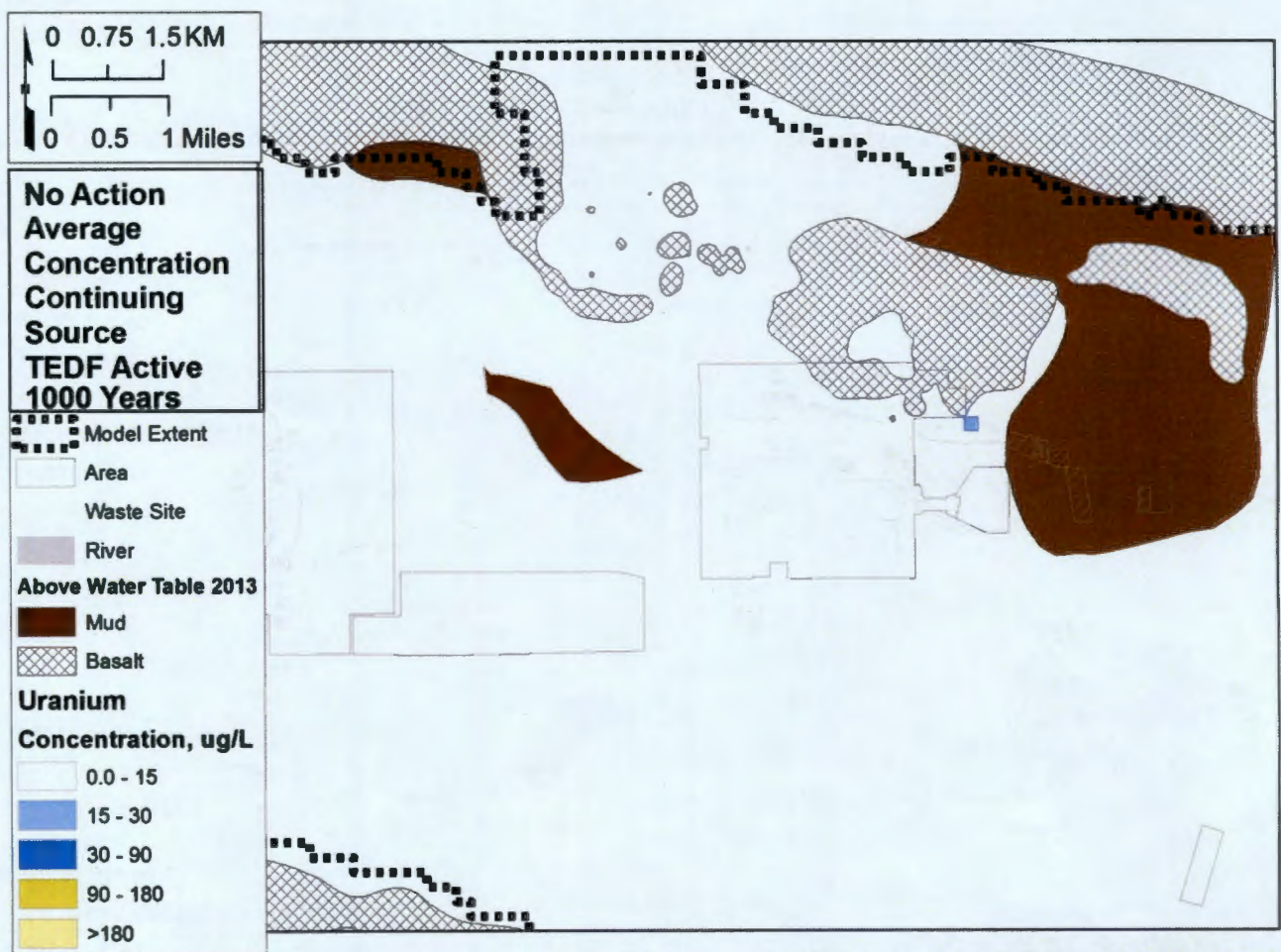


Figure B-415 - Plan view contours of the uranium plume at simulation time 1000 years based on the continuing source with TEDF future use simulation using average concentration initial conditions

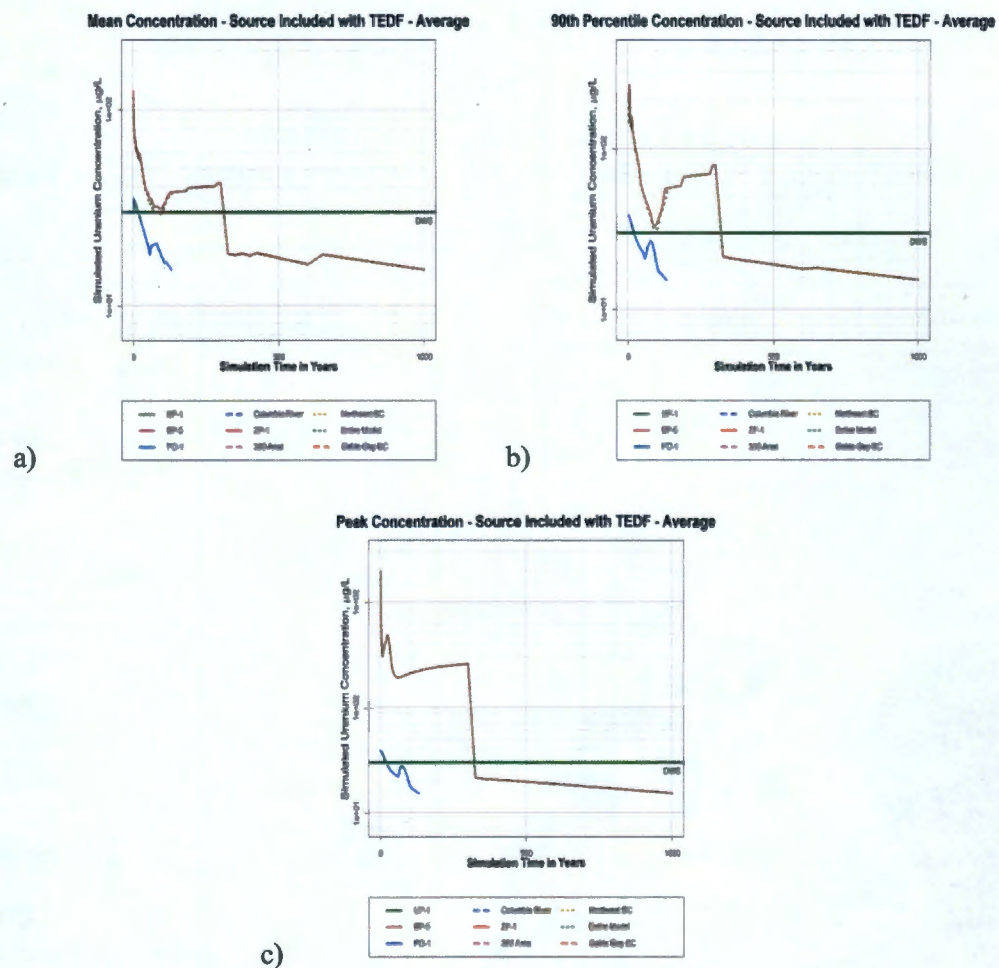


Figure B-416 - Statistical summary of simulated concentration within subregions of the model domain for the uranium plume for the continuing source with TEDF future use simulation using average concentration initial conditions.

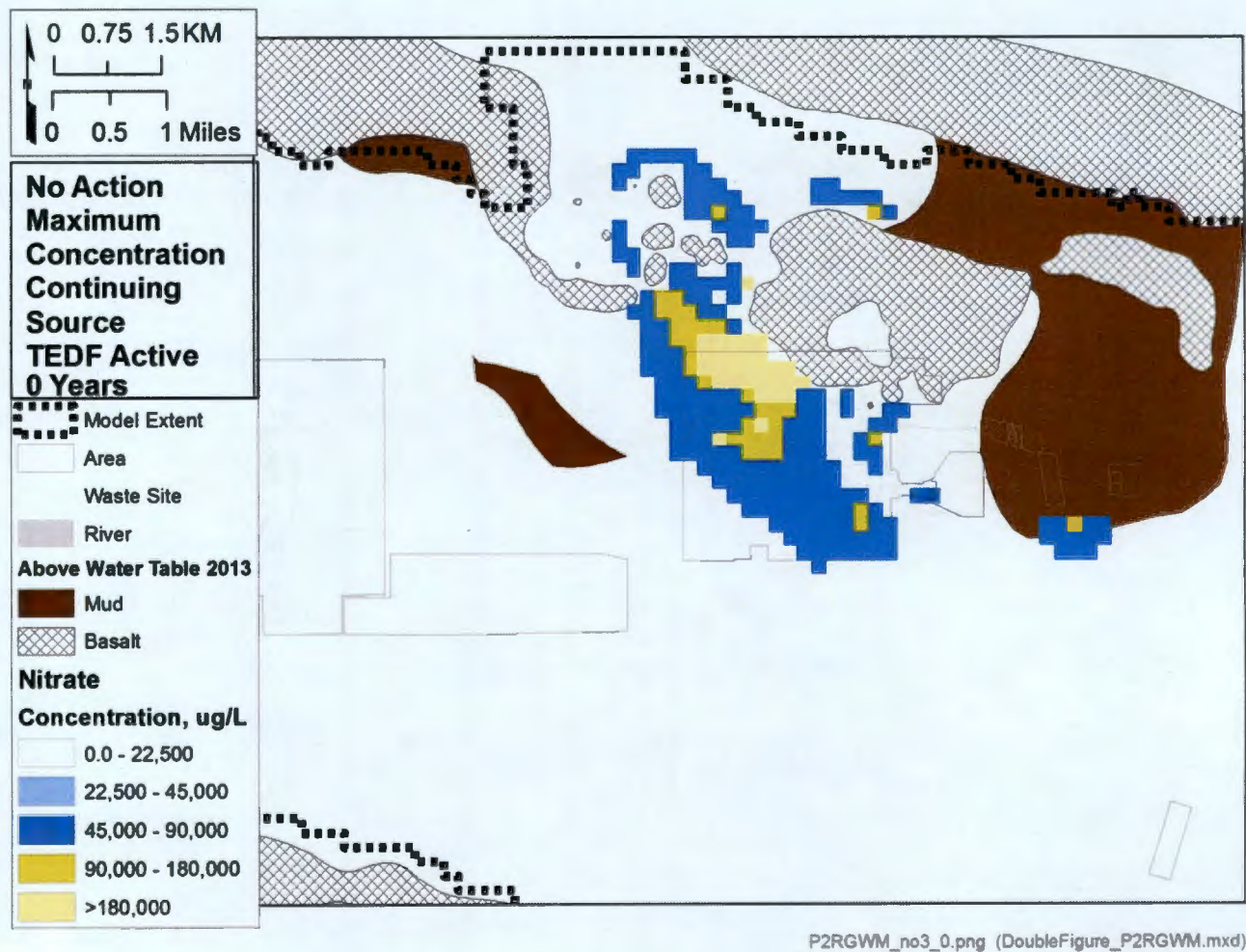
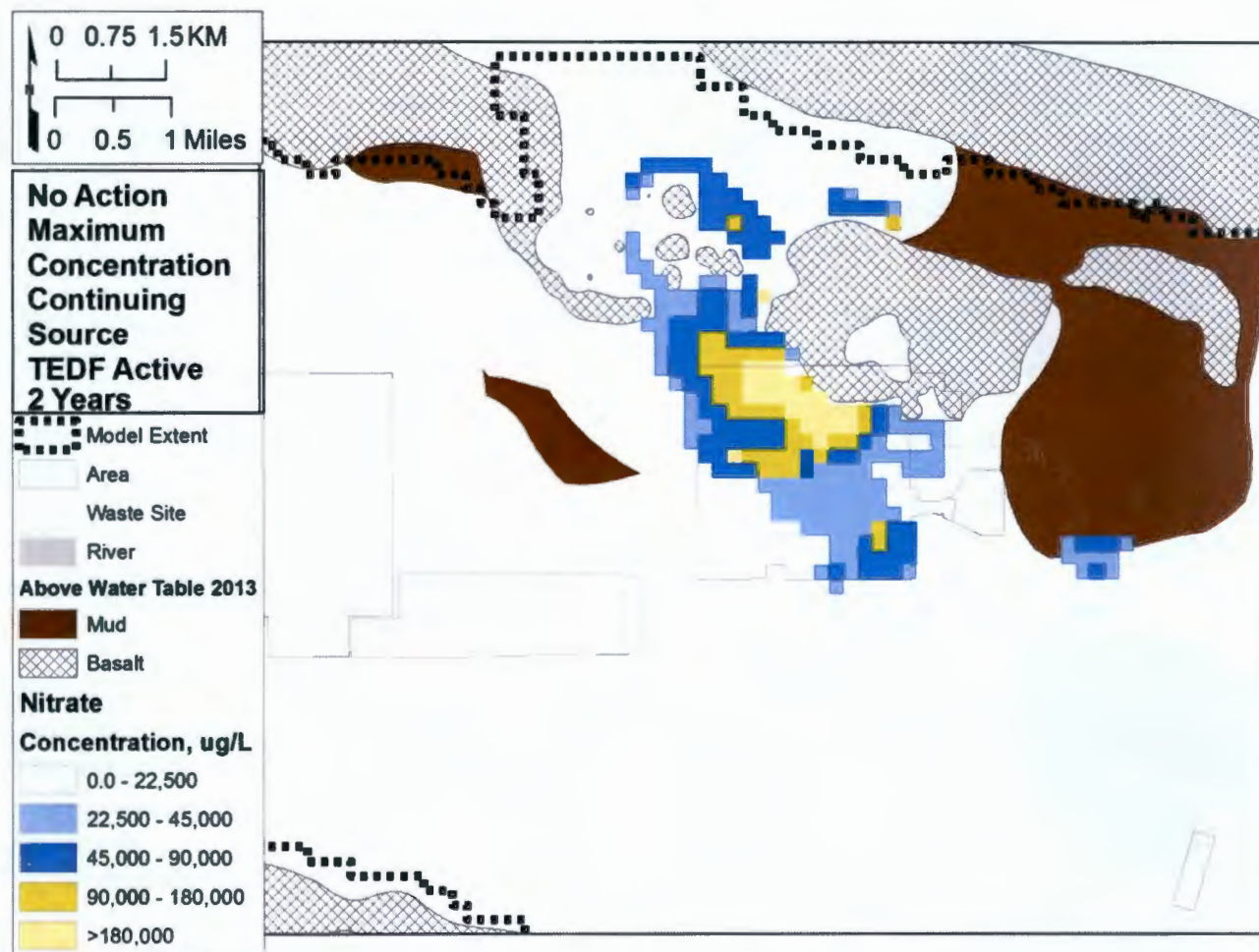


Figure B-417 - Plan view contours of the nitrate plume at simulation time 0 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions



P2RGWM_no3_2.png (DoubleFigure_P2RGWM.mxd)

Figure B-418 - Plan view contours of the nitrate plume at simulation time 2 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

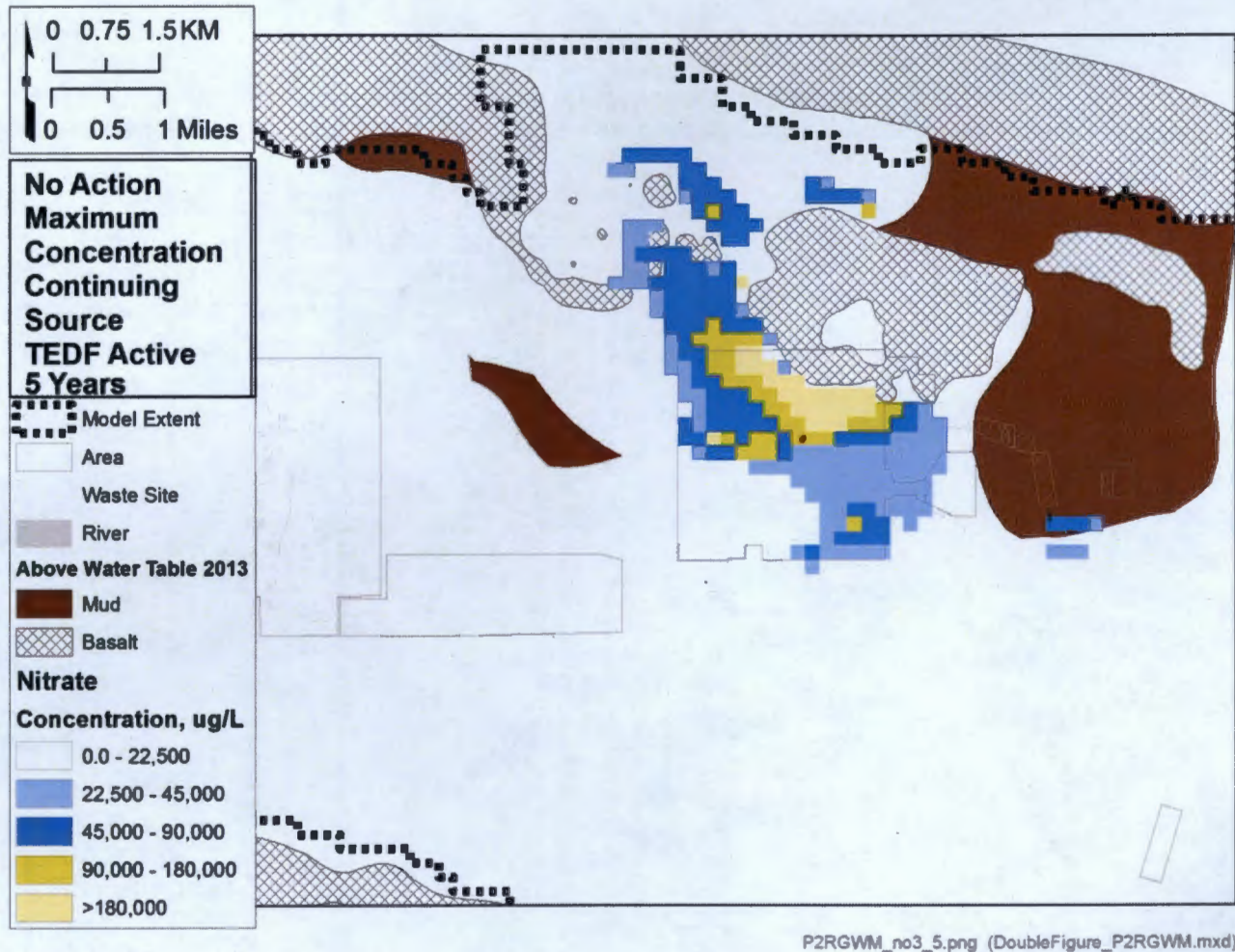


Figure B-419 - Plan view contours of the nitrate plume at simulation time 5 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

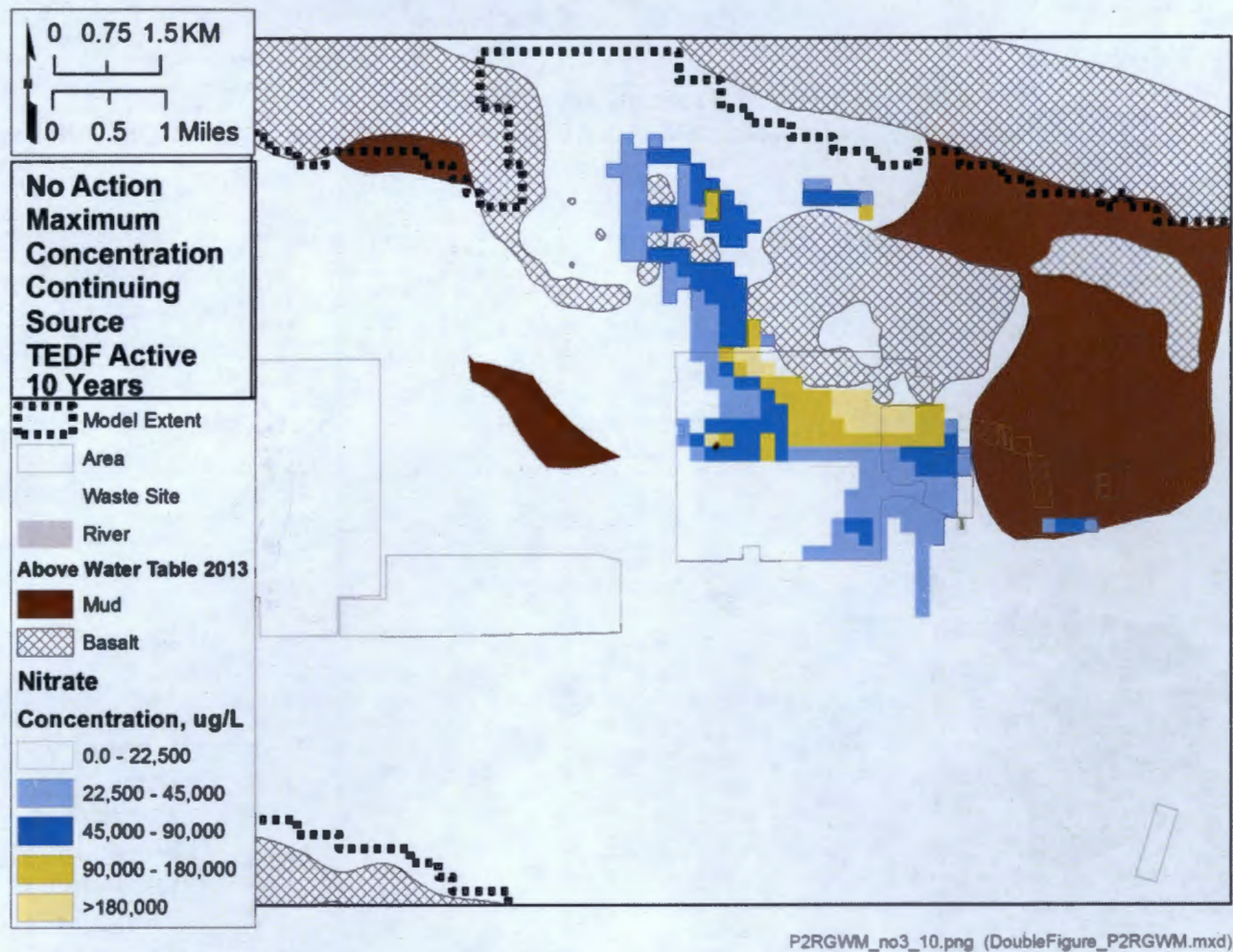


Figure B-420 - Plan view contours of the nitrate plume at simulation time 10 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

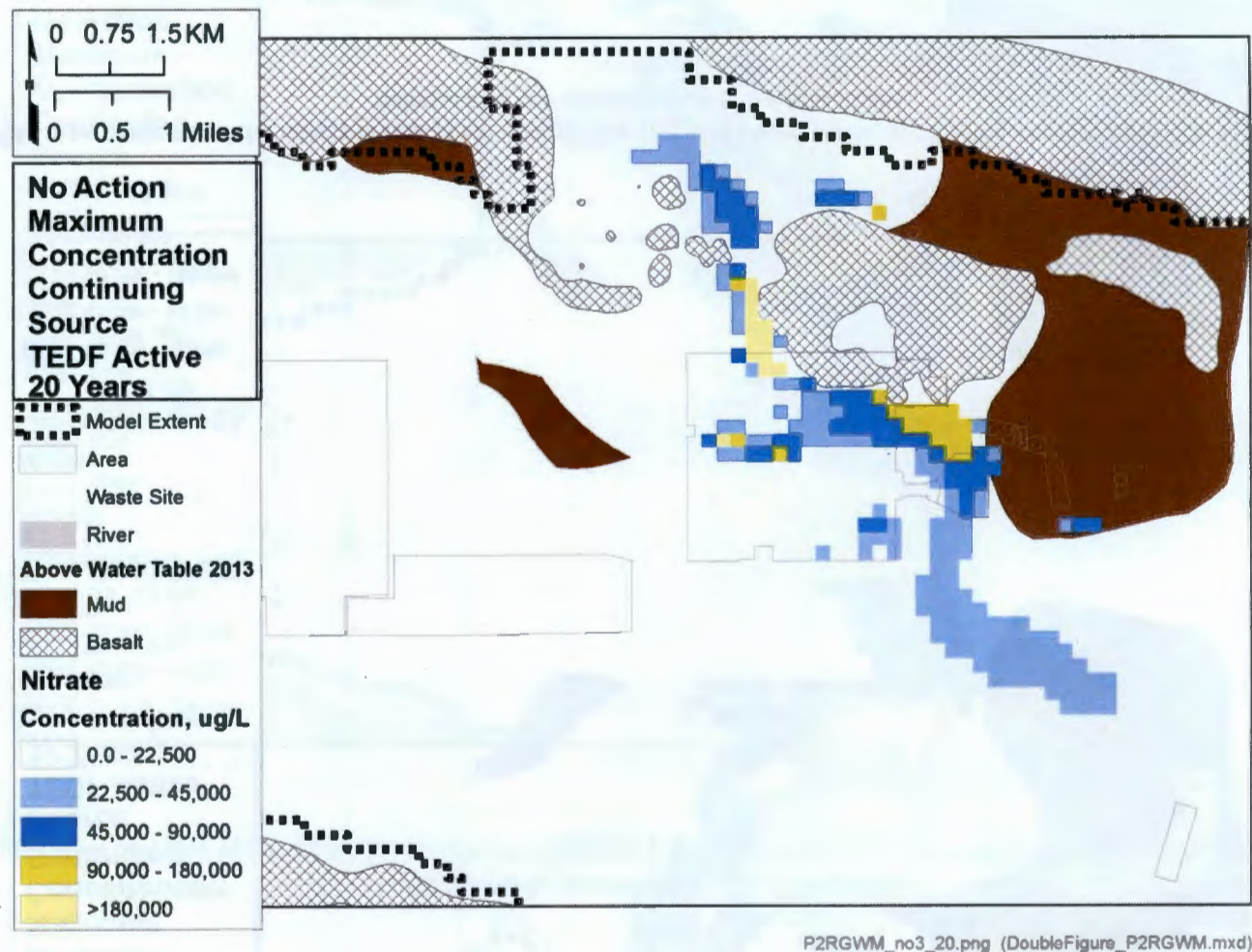


Figure B-421 - Plan view contours of the nitrate plume at simulation time 20 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

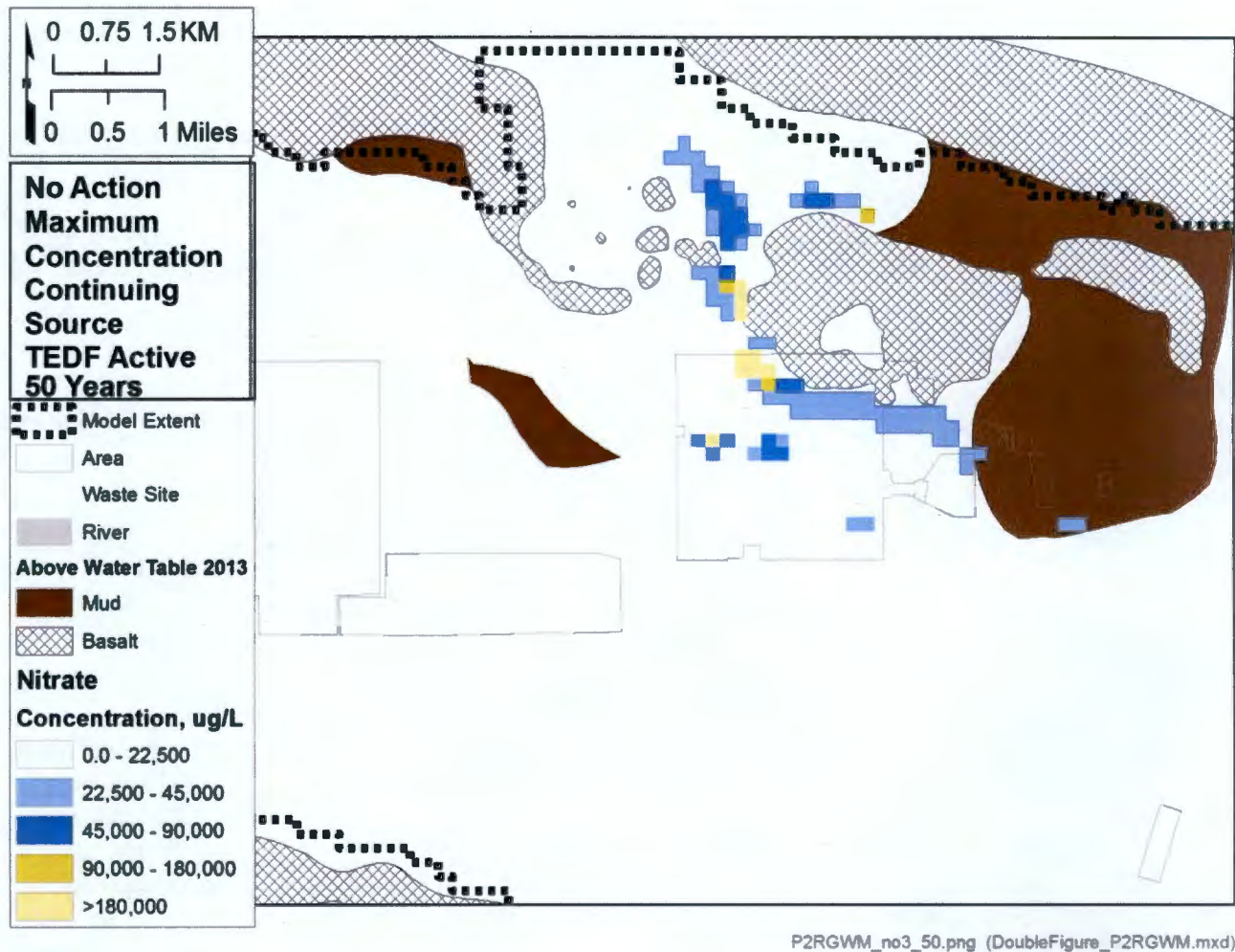


Figure B-422 - Plan view contours of the nitrate plume at simulation time 50 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

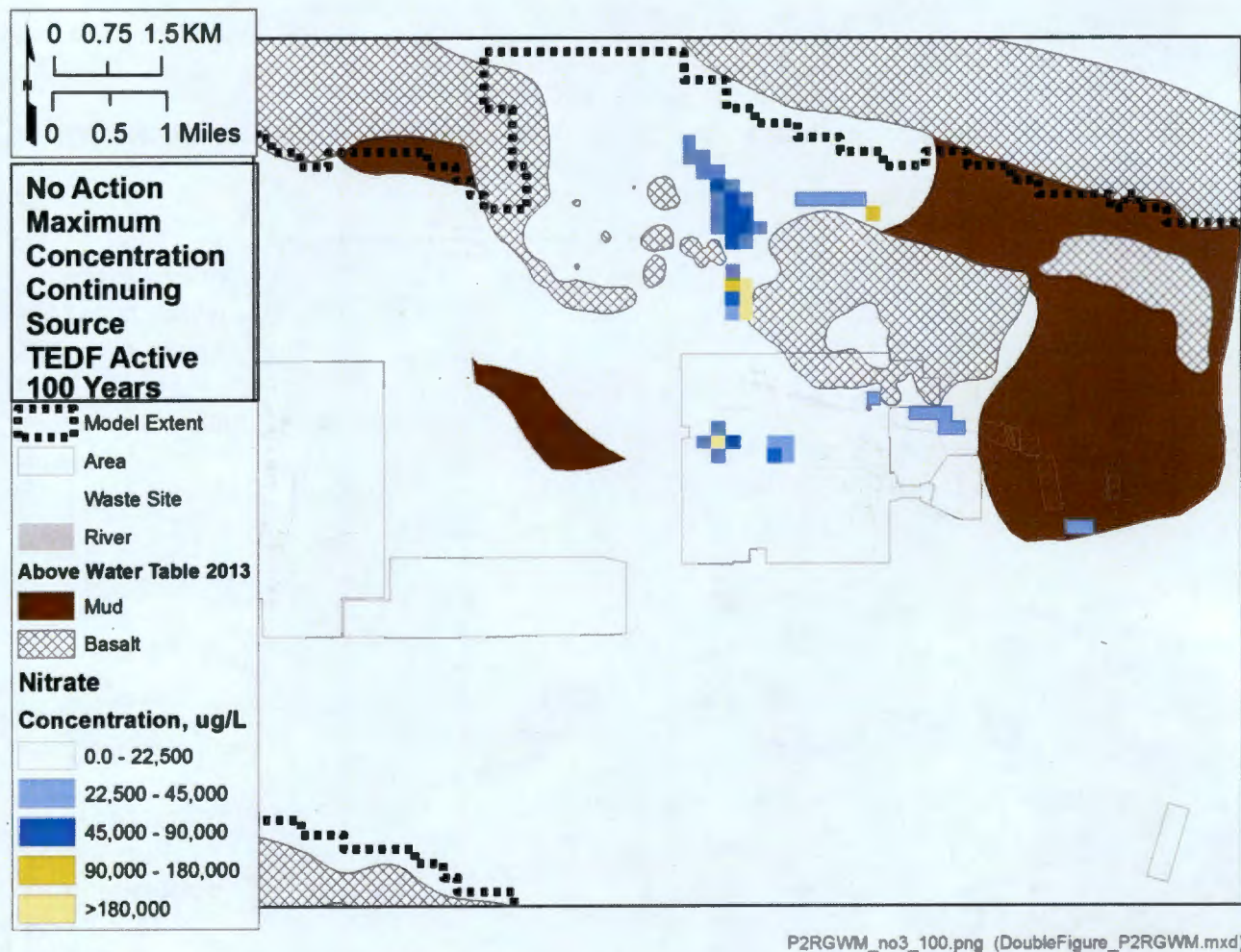


Figure B-423 - Plan view contours of the nitrate plume at simulation time 100 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

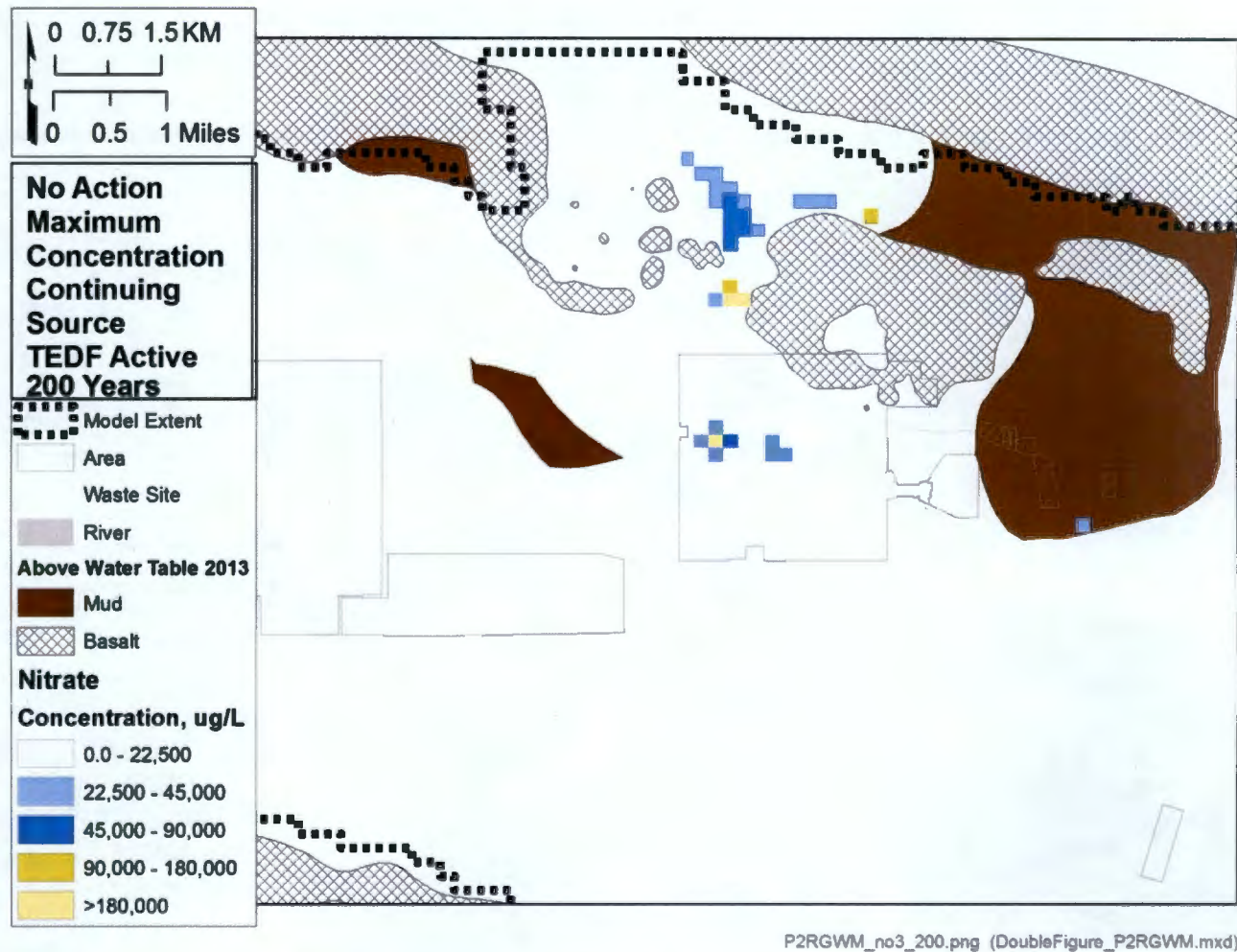


Figure B-424 - Plan view contours of the nitrate plume at simulation time 200 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

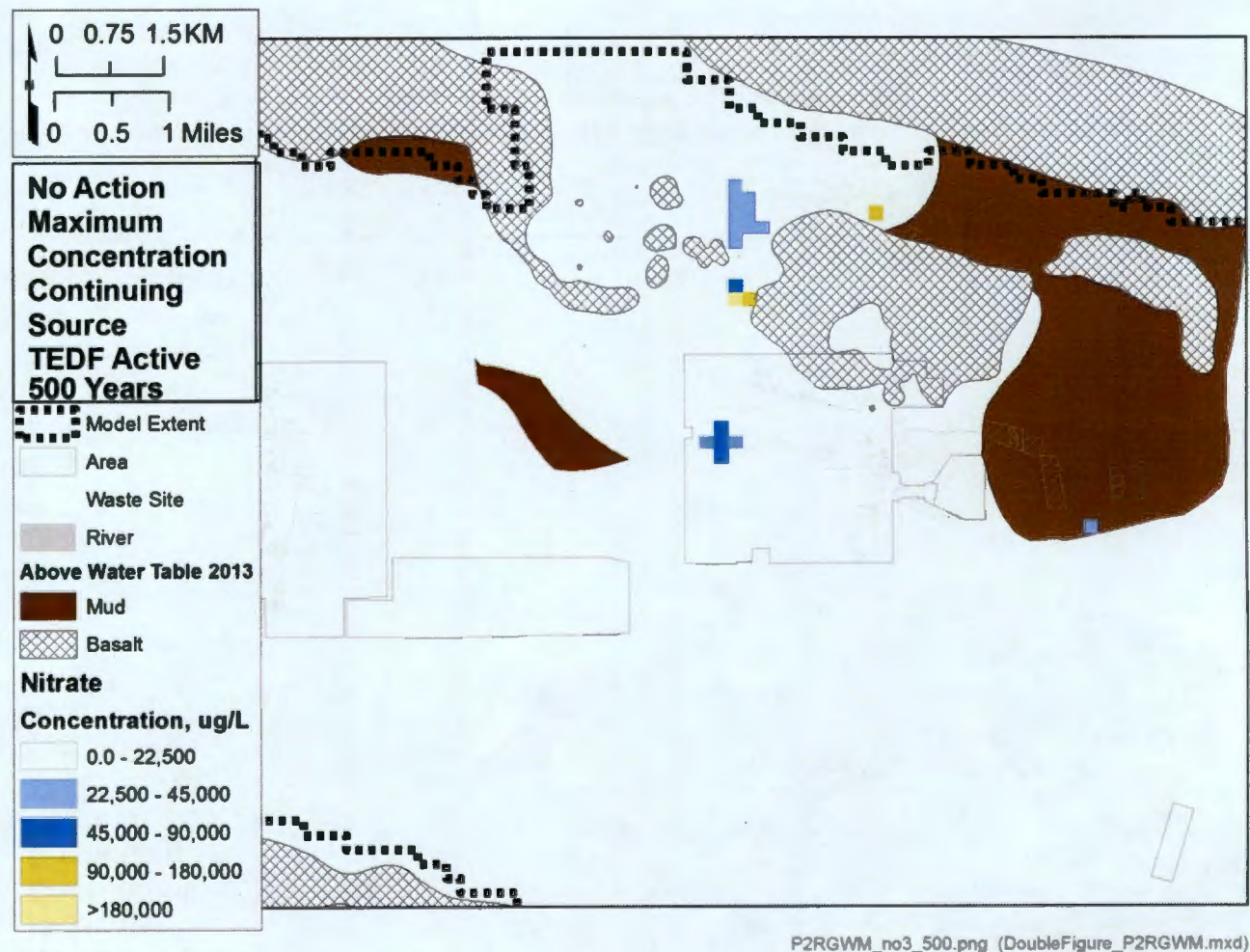


Figure B-425 - Plan view contours of the nitrate plume at simulation time 500 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

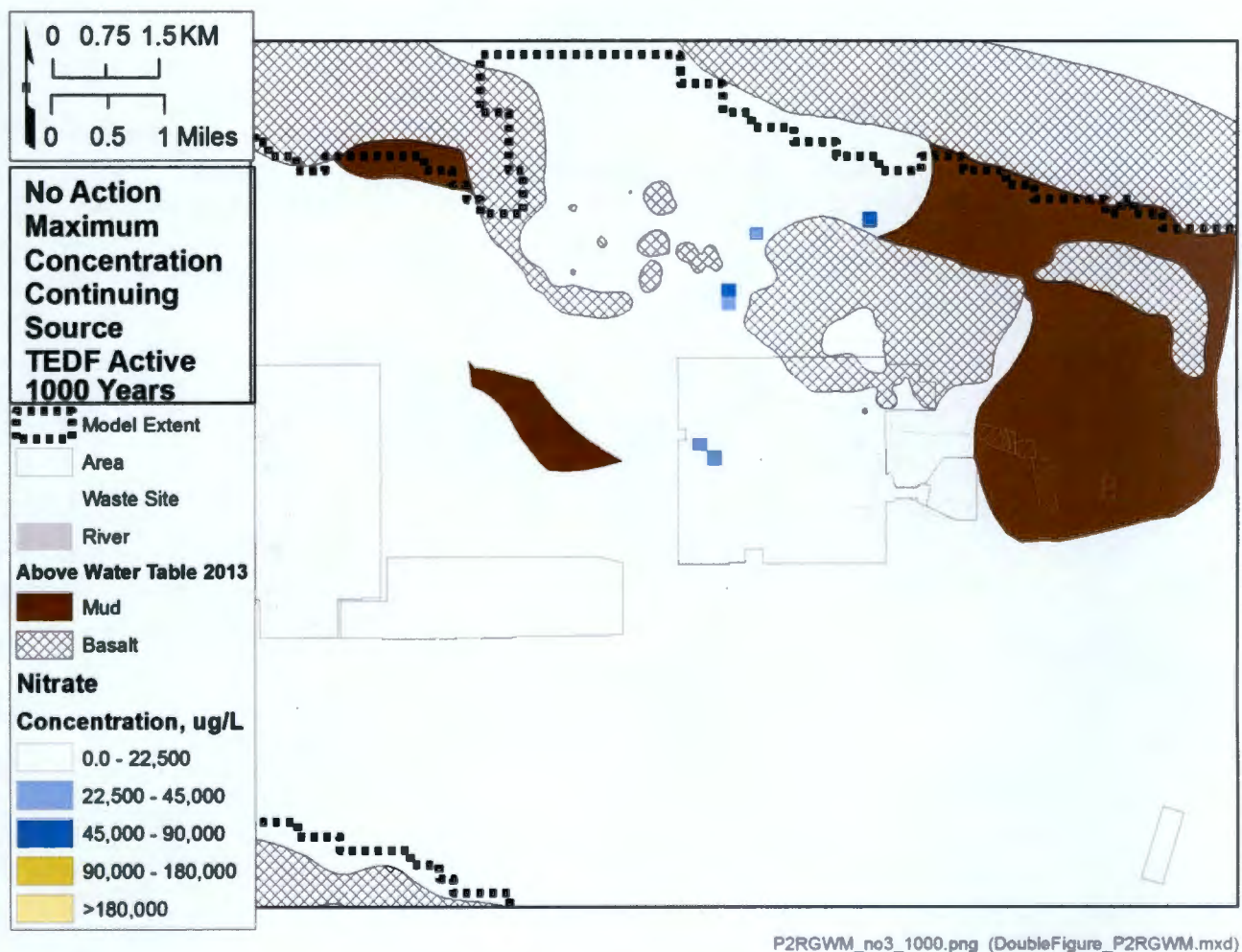


Figure B-426 - Plan view contours of the nitrate plume at simulation time 1000 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

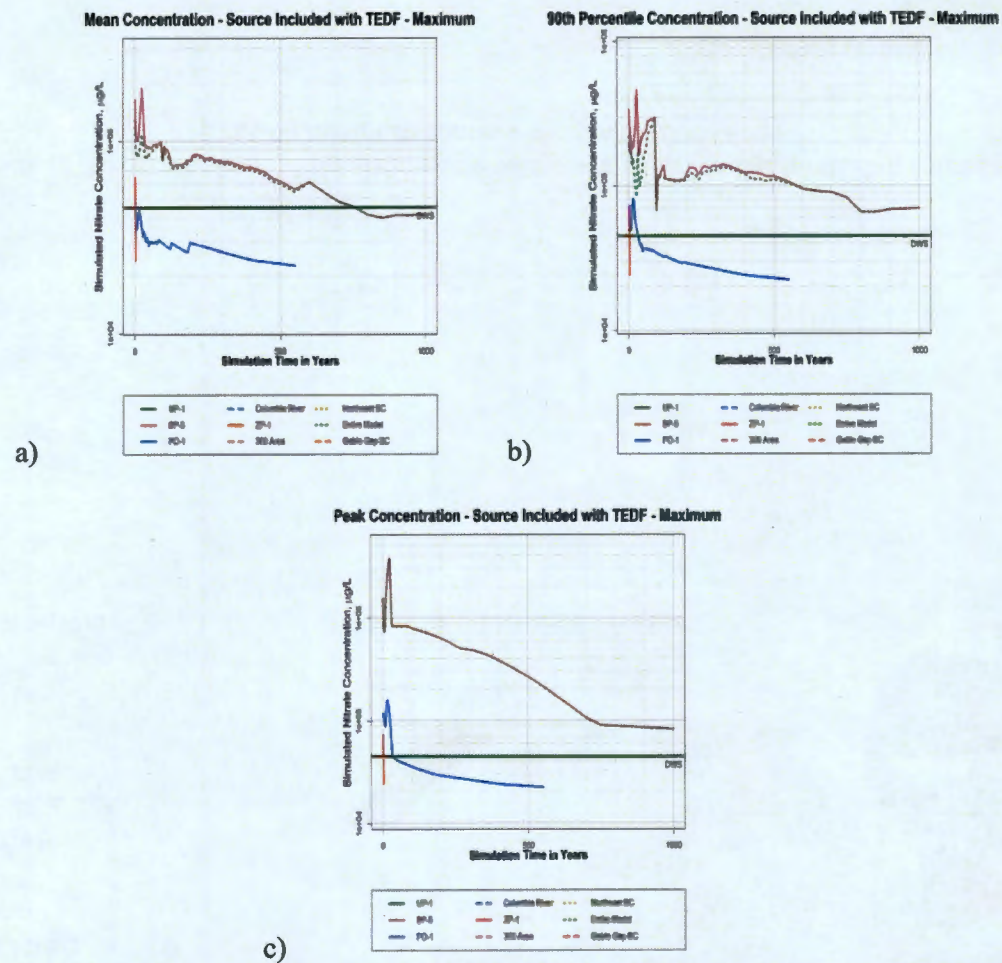


Figure B-427 - Statistical summary of simulated concentration within subregions of the model domain for the nitrate plume for the continuing source with TEDF future use simulation using maximum concentration initial conditions.

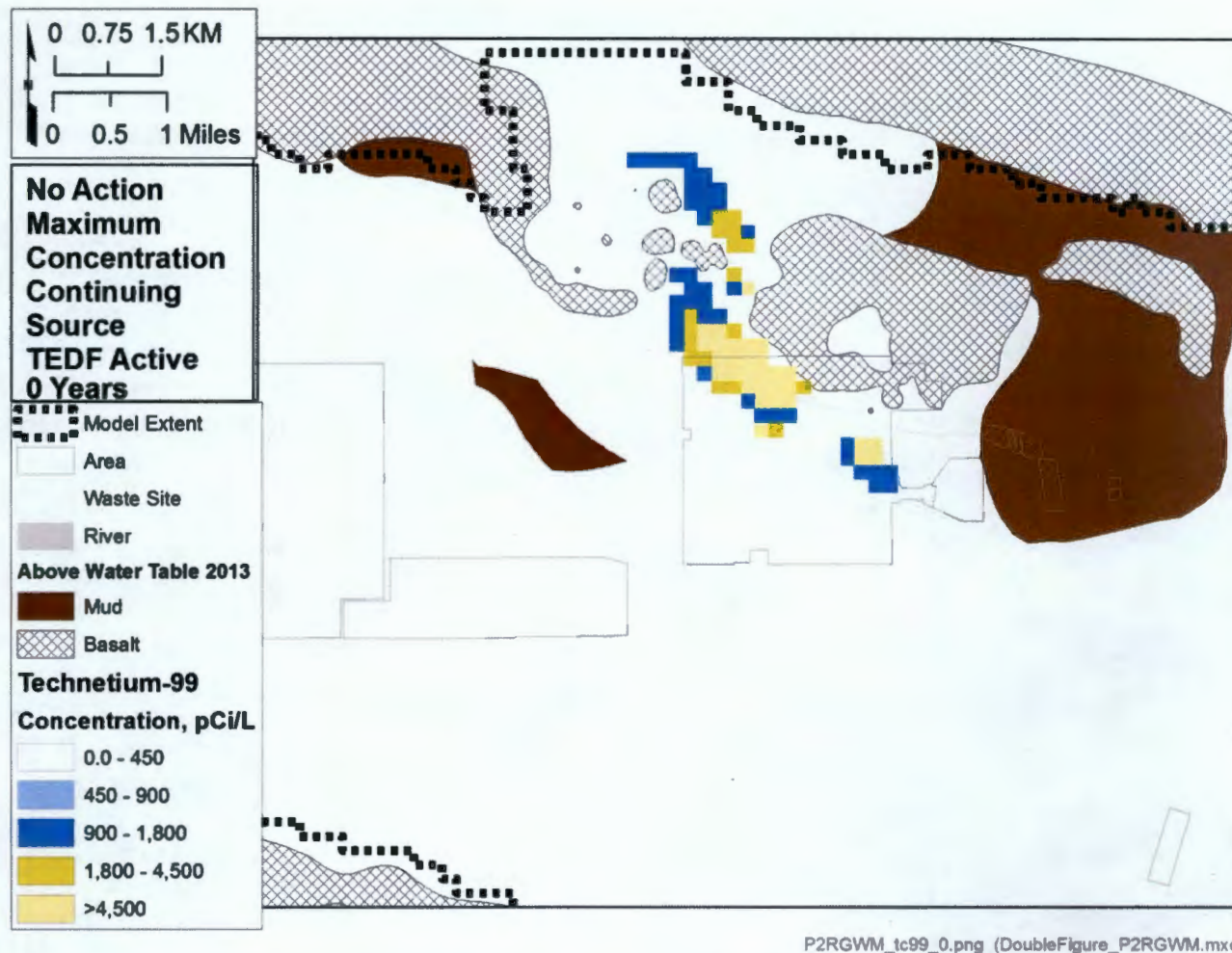


Figure B-428 - Plan view contours of the technetium-99 plume at simulation time 0 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

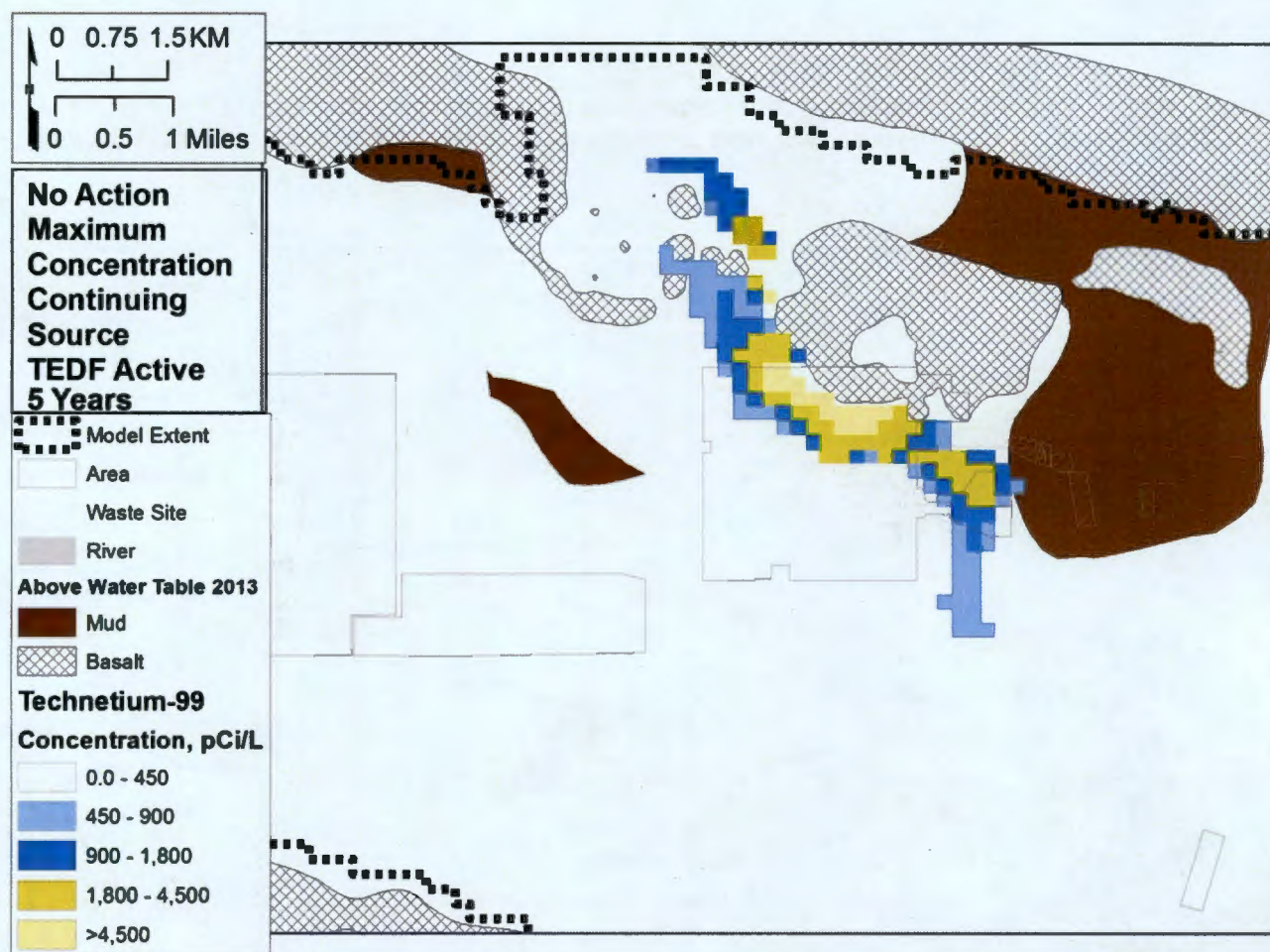


Figure B-429 - Plan view contours of the technetium-99 plume at simulation time 5 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

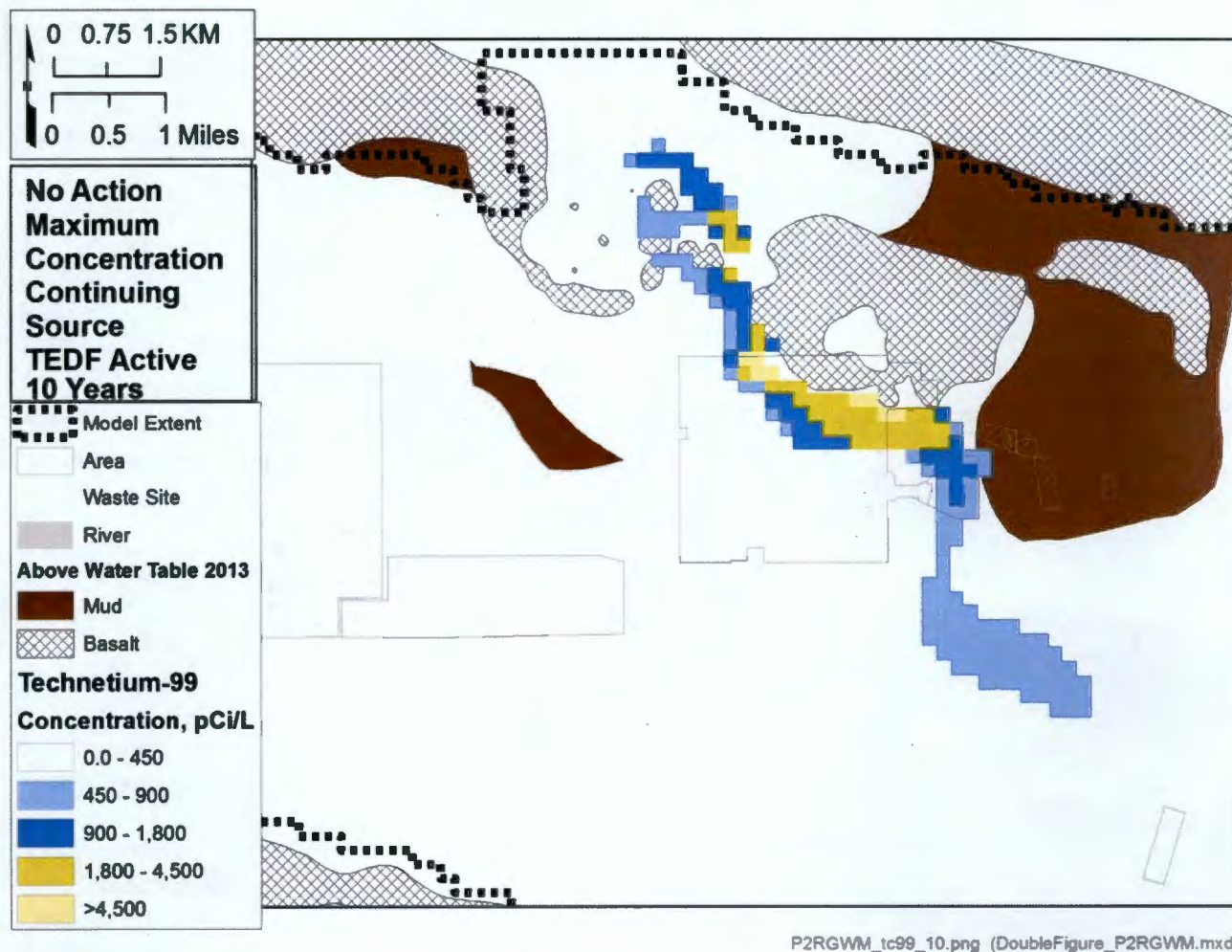


Figure B-430 - Plan view contours of the technetium-99 plume at simulation time 10 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

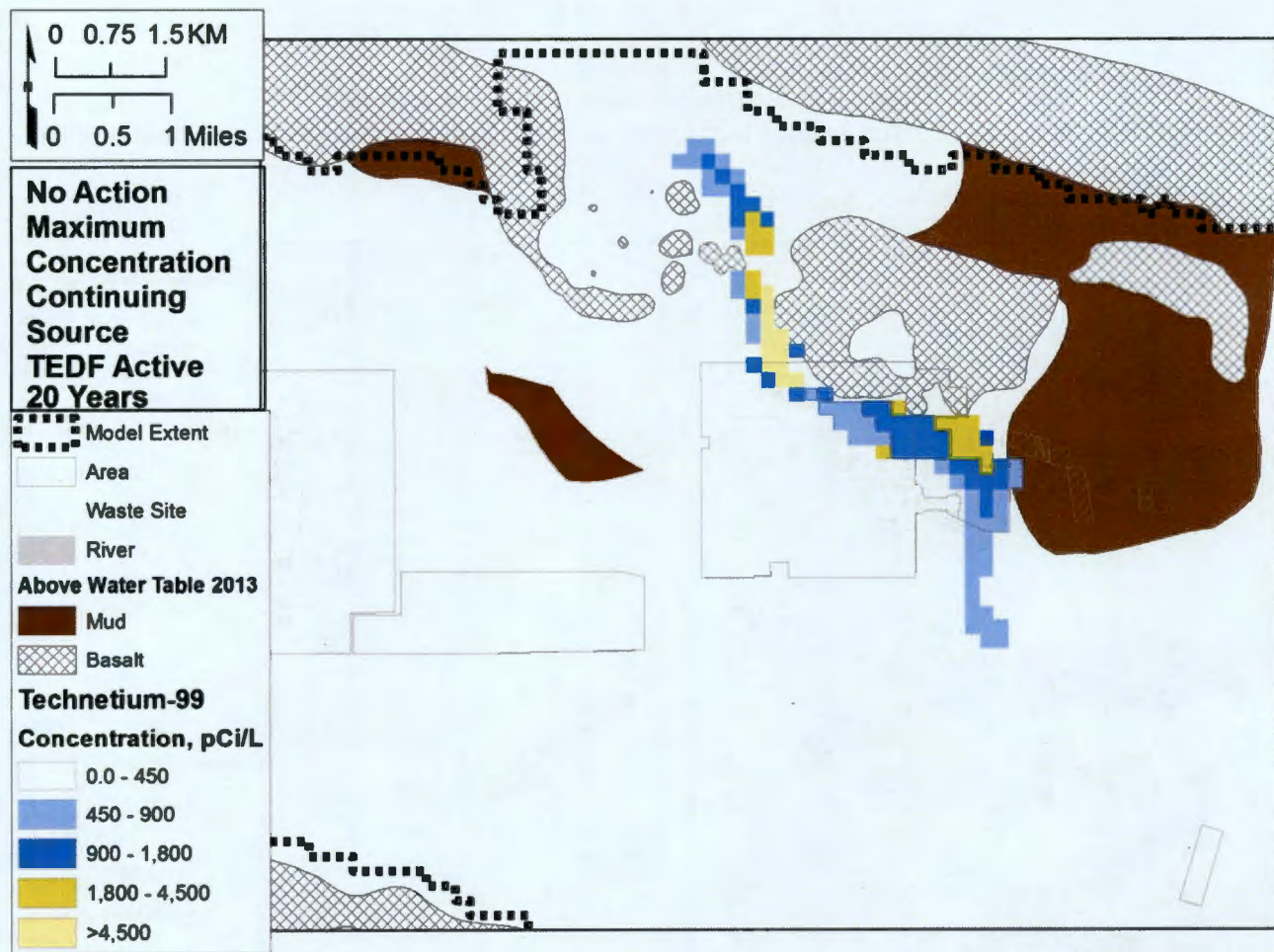


Figure B-431 - Plan view contours of the technetium-99 plume at simulation time 20 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

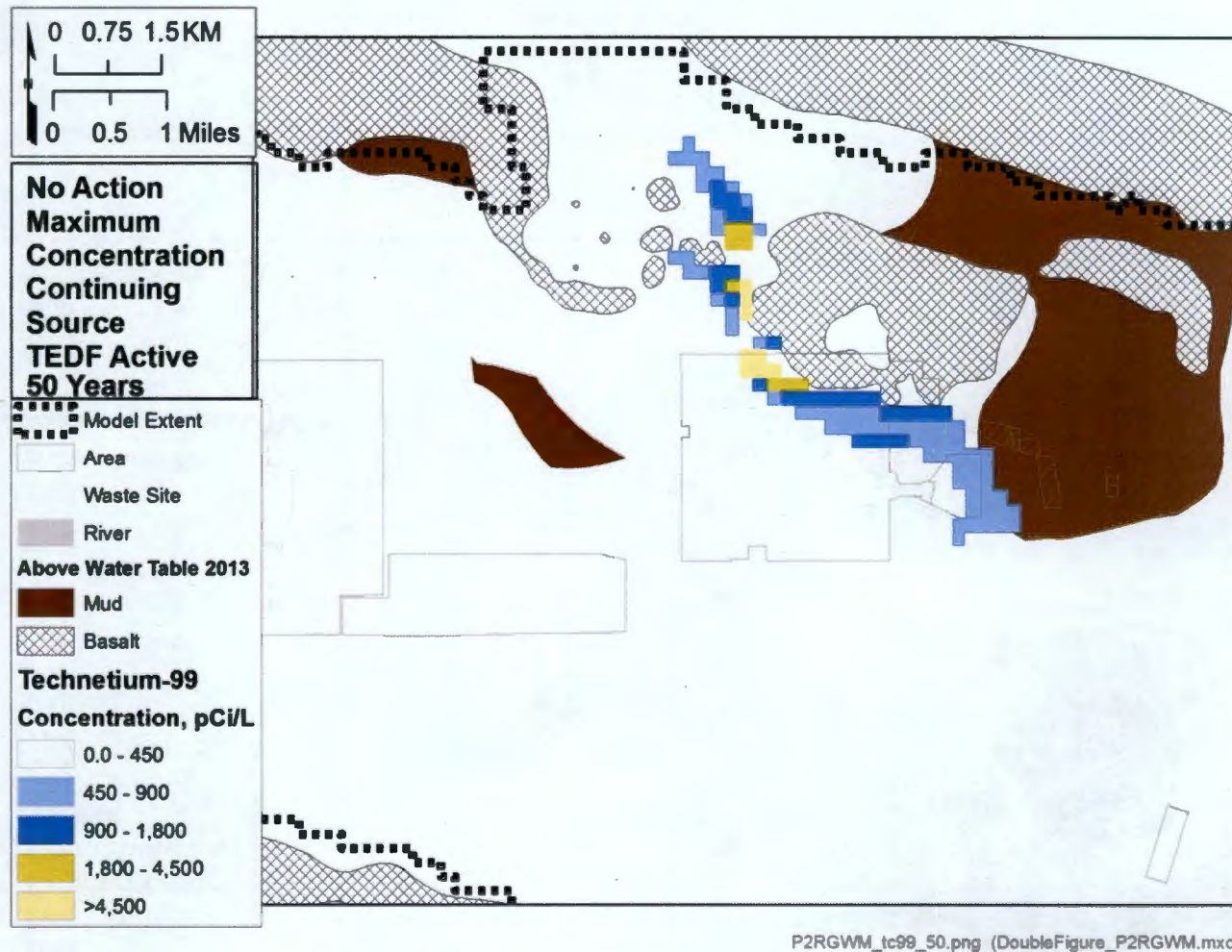


Figure B-432 - Plan view contours of the technetium-99 plume at simulation time 50 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

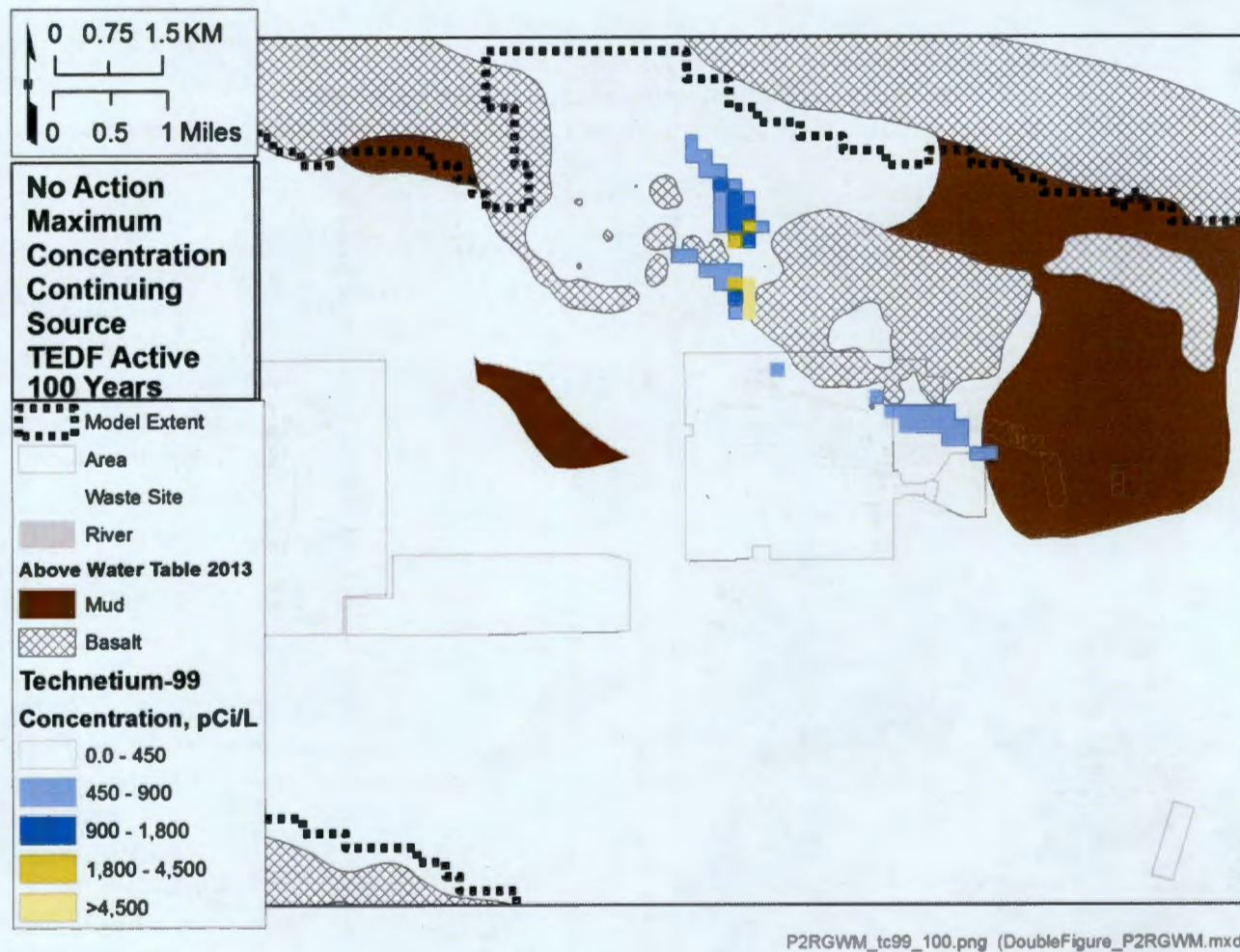


Figure B-433 - Plan view contours of the technetium-99 plume at simulation time 100 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

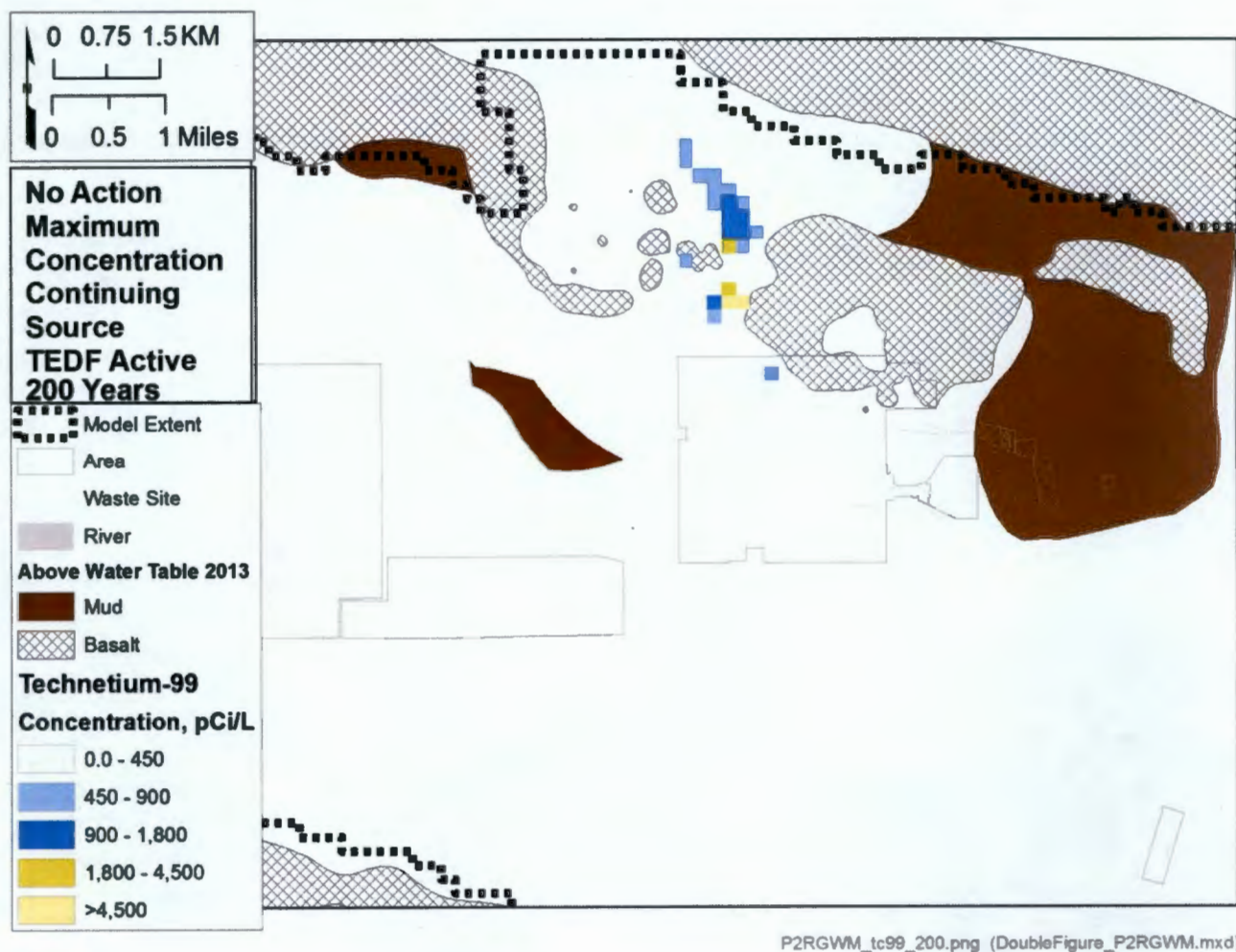


Figure B-434 - Plan view contours of the technetium-99 plume at simulation time 200 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

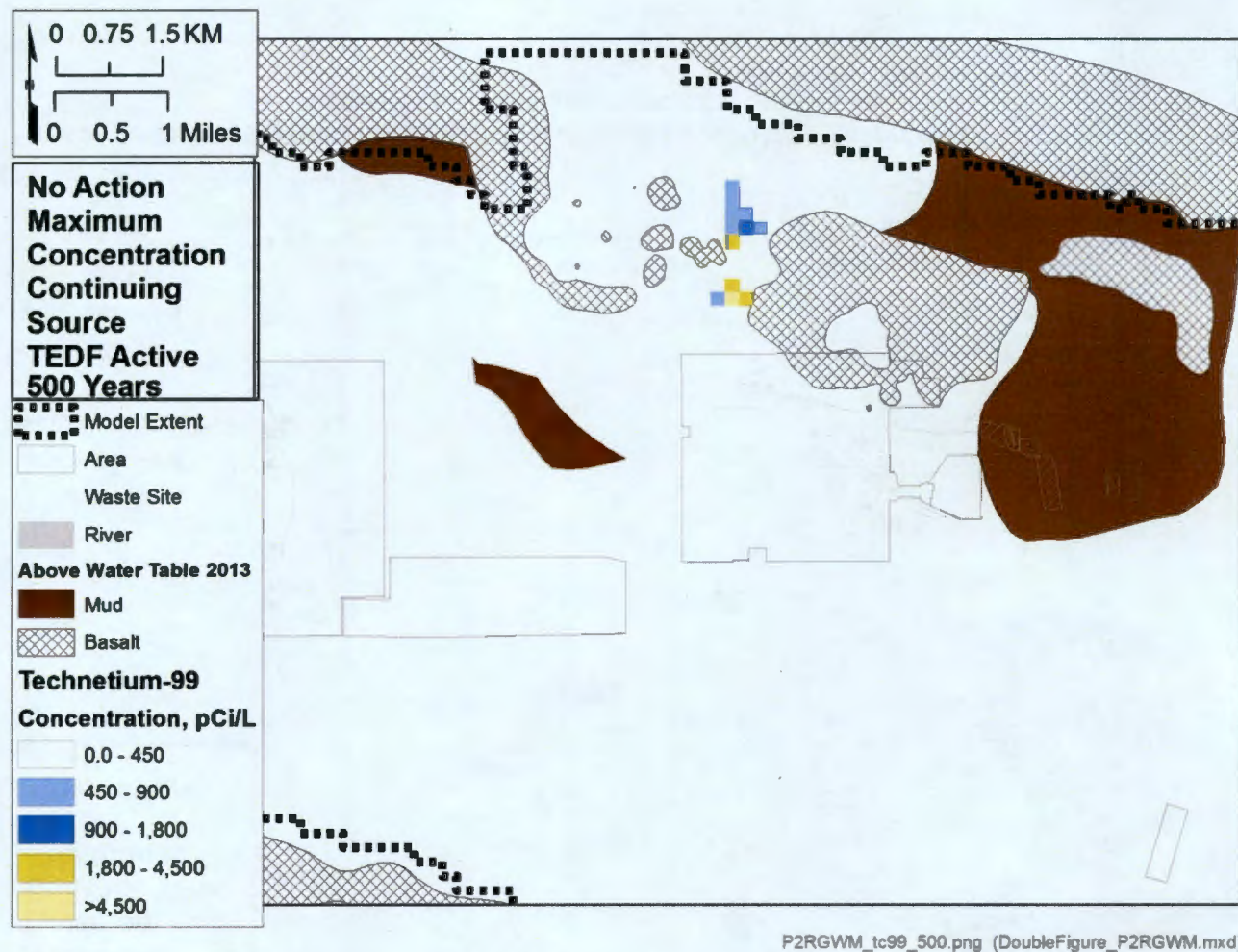


Figure B-435 - Plan view contours of the technetium-99 plume at simulation time 500 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

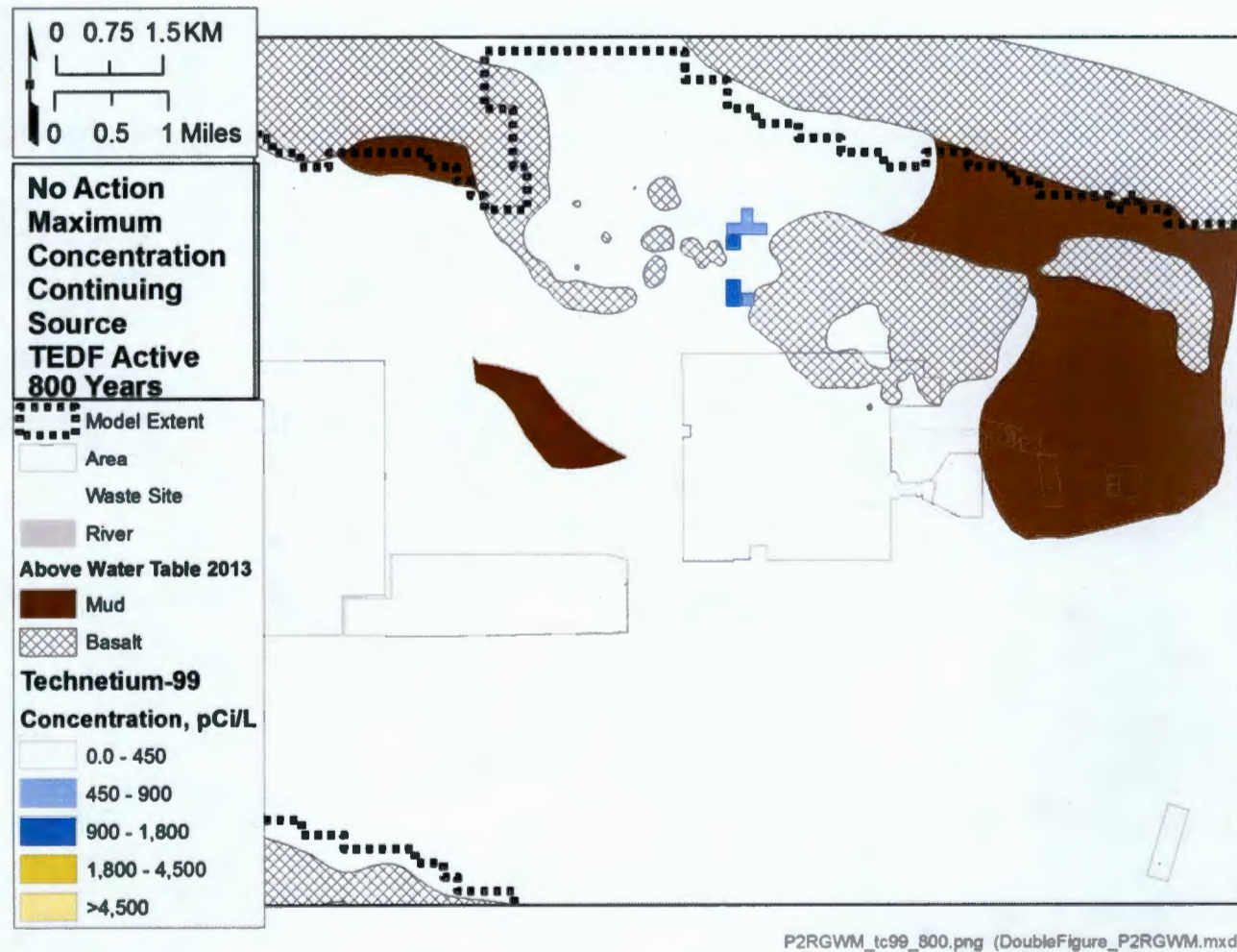


Figure B-436 - Plan view contours of the technetium-99 plume at simulation time 800 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

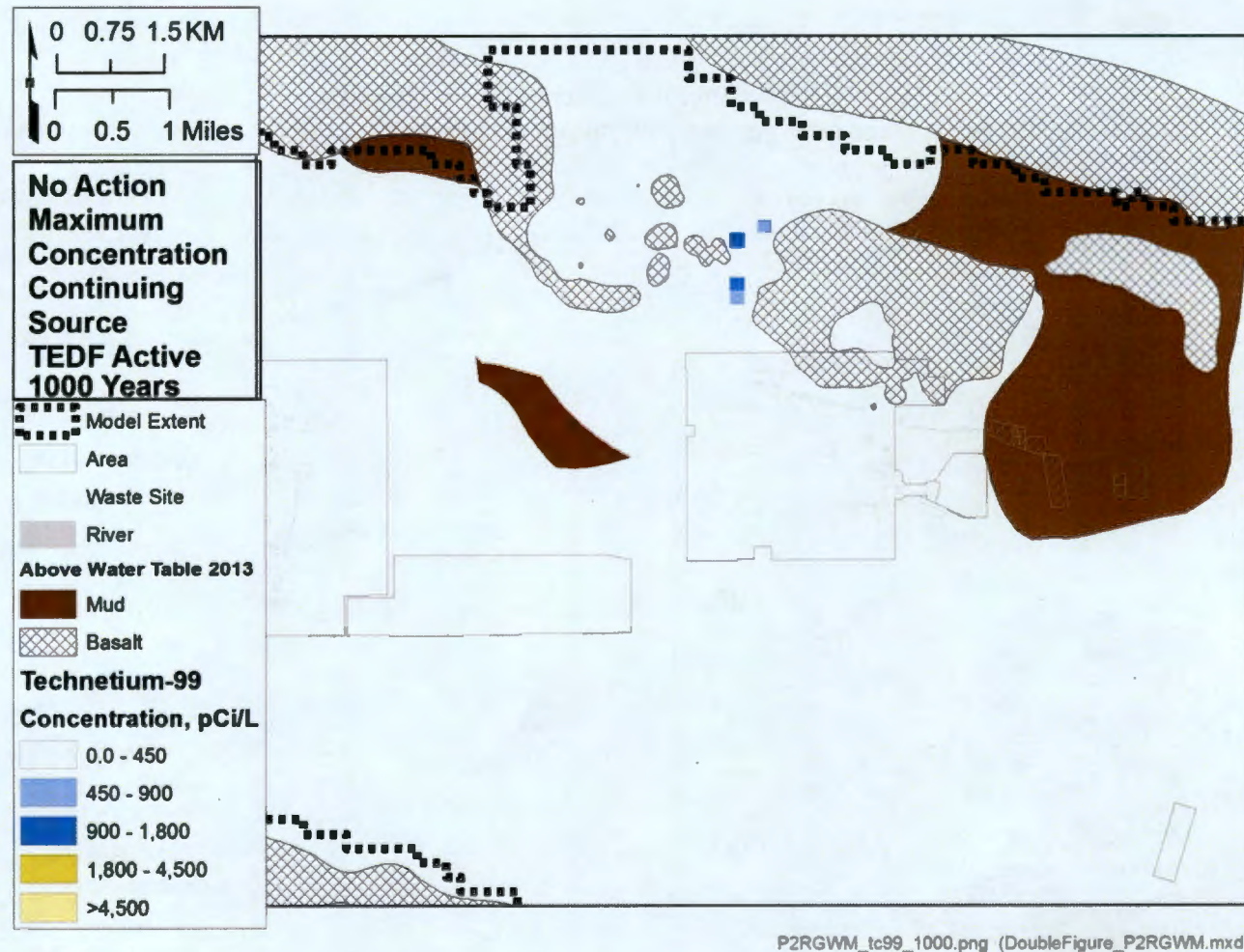


Figure B-437 - Plan view contours of the technetium-99 plume at simulation time 1000 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

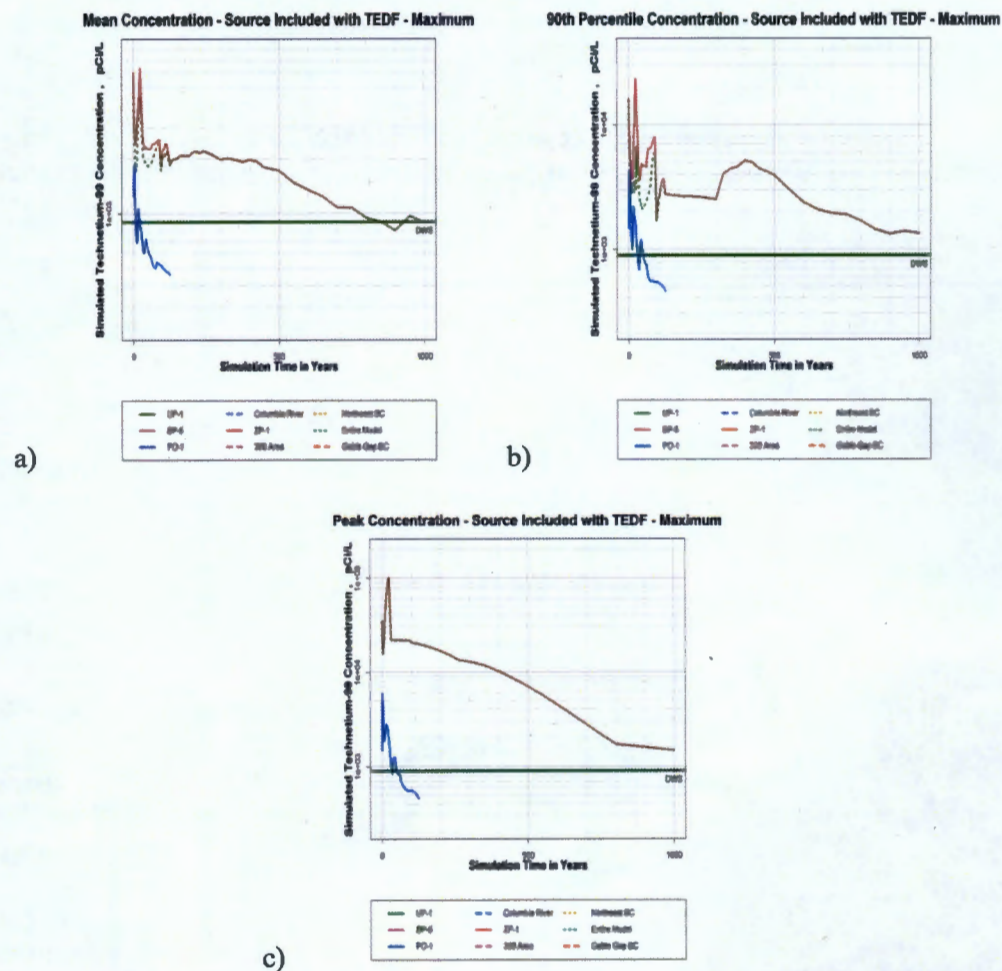


Figure B-438 - Statistical summary of simulated concentration within subregions of the model domain for the technetium-99 plume for the continuing source with TEDF future use simulation using maximum concentration initial conditions.

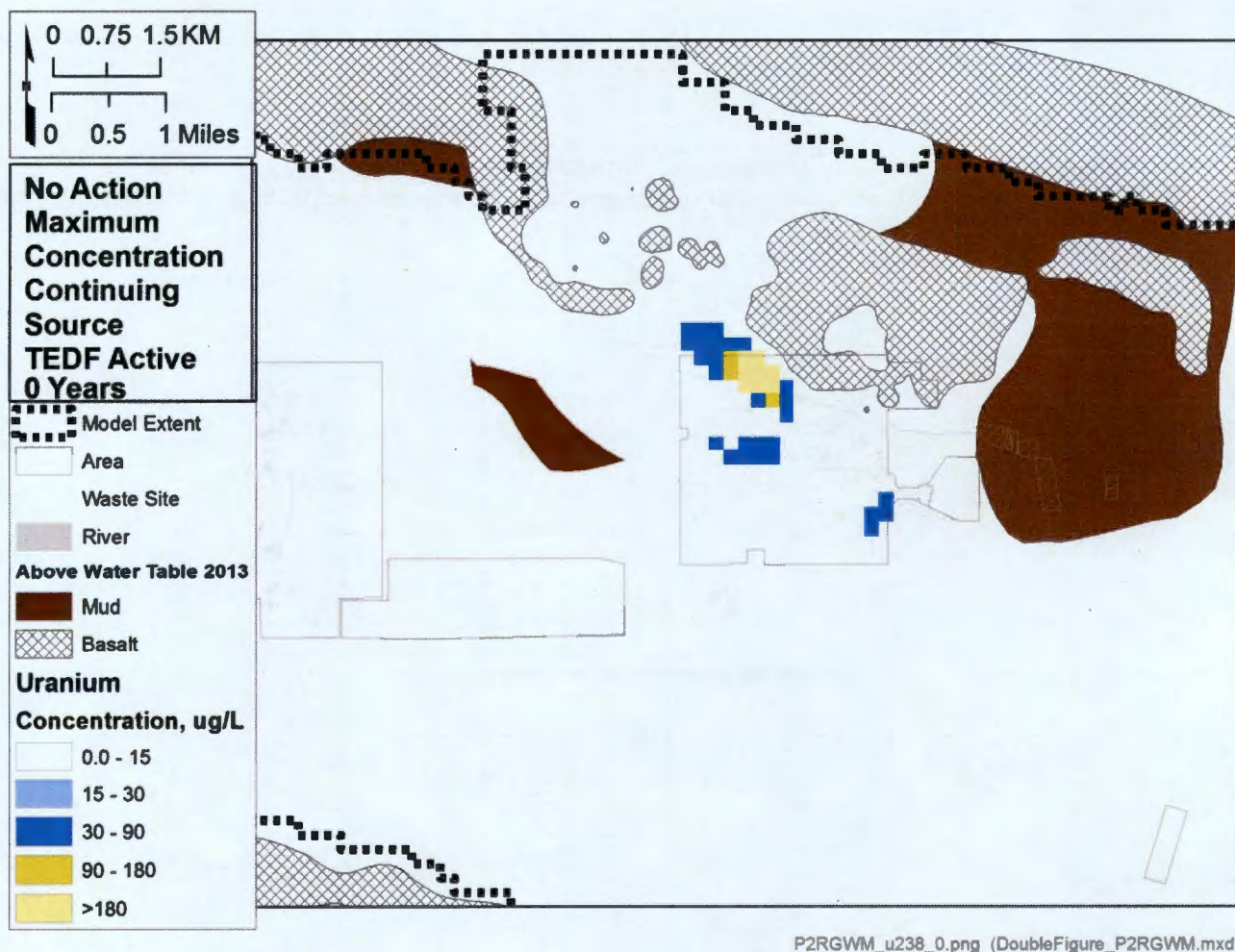
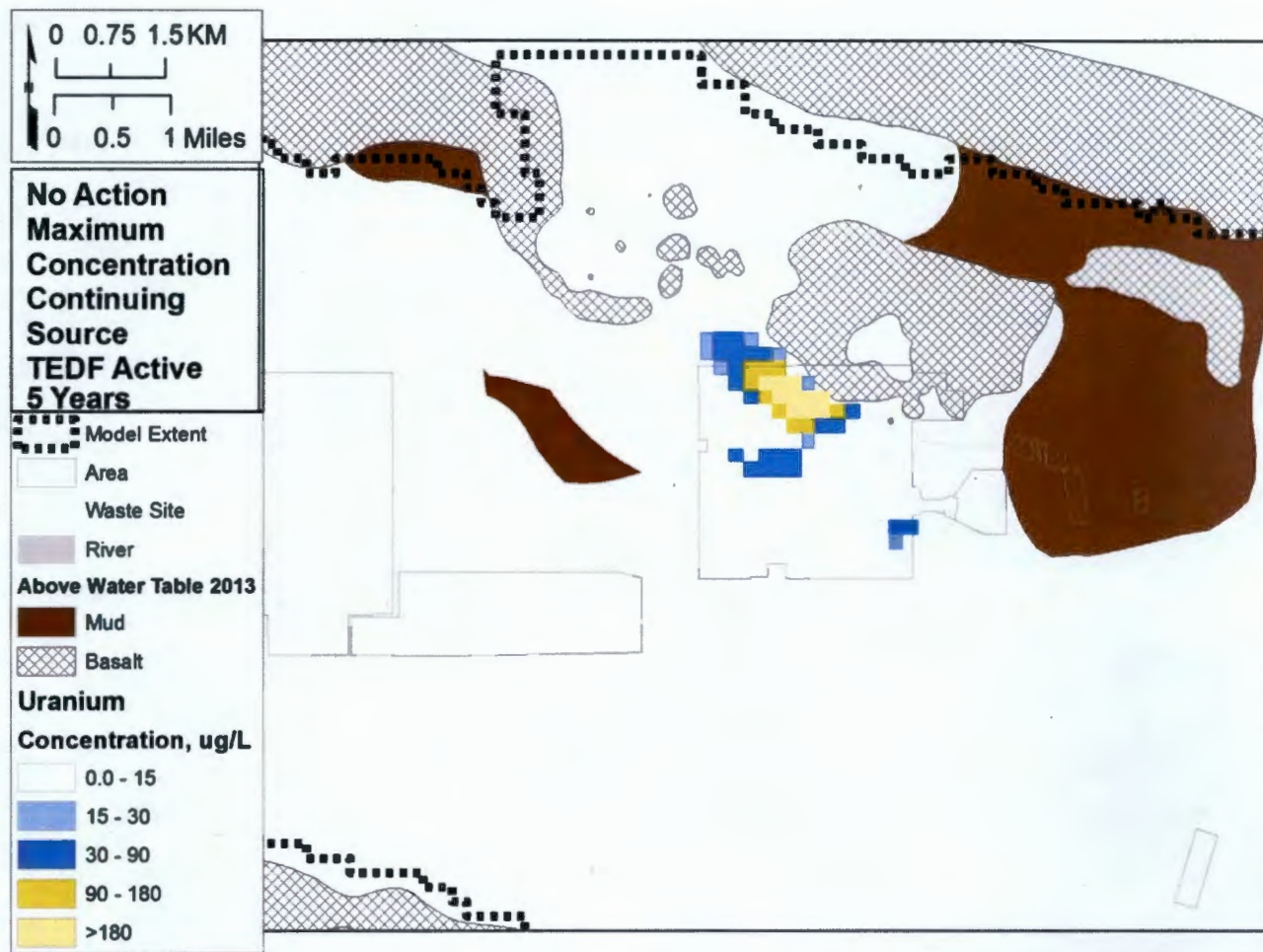


Figure B-439 - Plan view contours of the uranium plume at simulation time 0 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions



P2RGWM_u238_5.png (DoubleFigure_P2RGWM.mxd)

Figure B-440 - Plan view contours of the uranium plume at simulation time 5 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

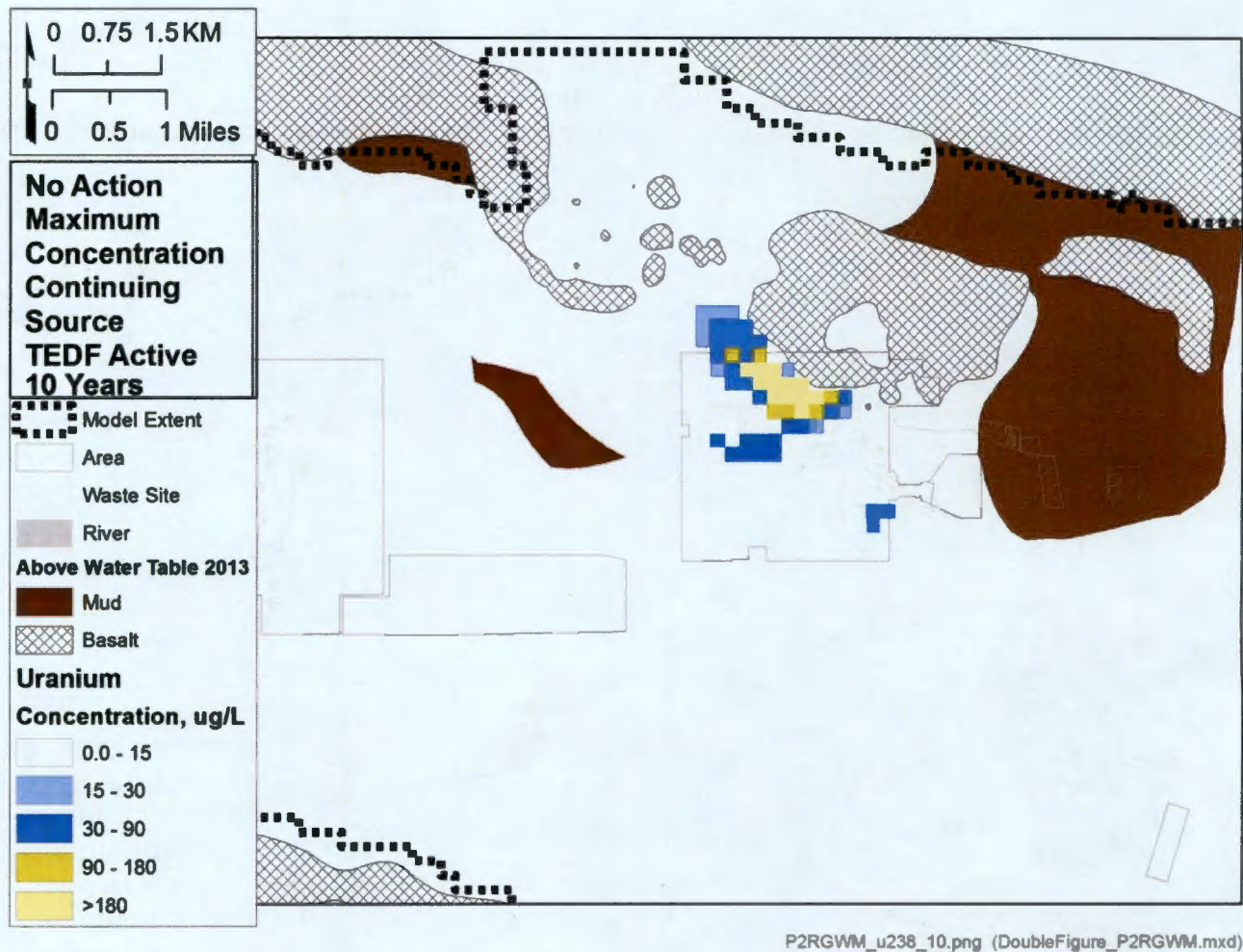


Figure B-441 - Plan view contours of the uranium plume at simulation time 10 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

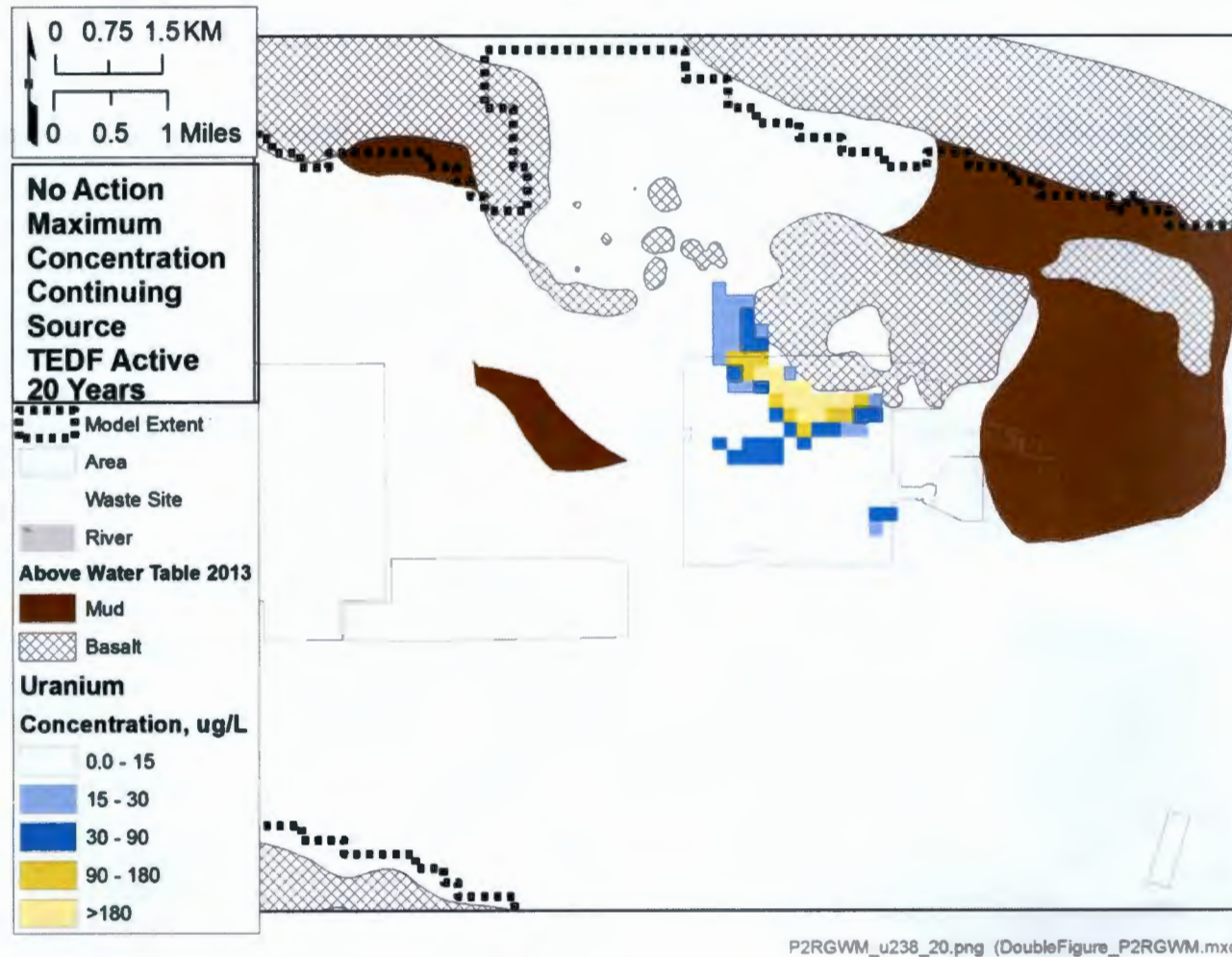


Figure B-442 - Plan view contours of the uranium plume at simulation time 20 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

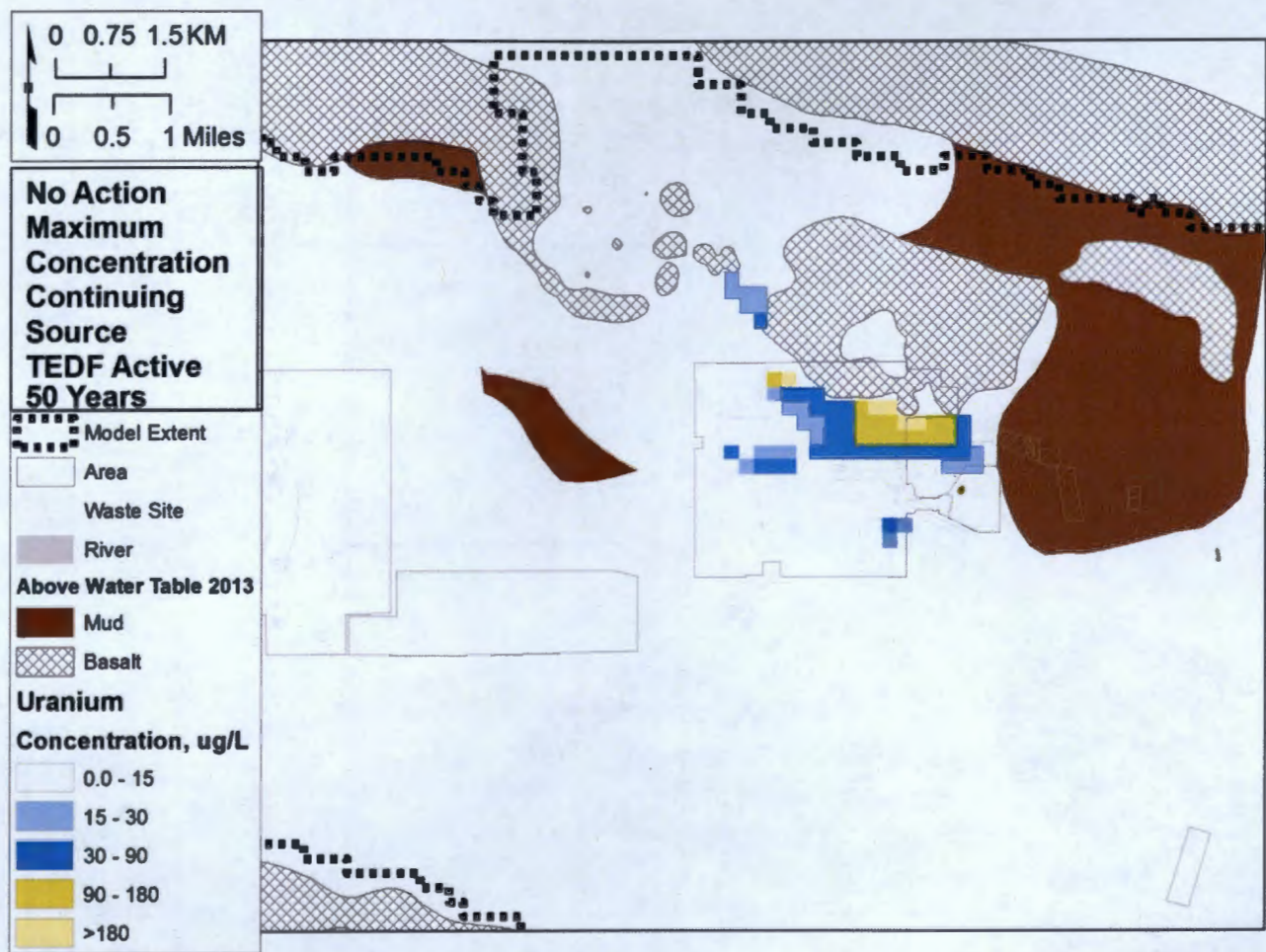


Figure B-443 - Plan view contours of the uranium plume at simulation time 50 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

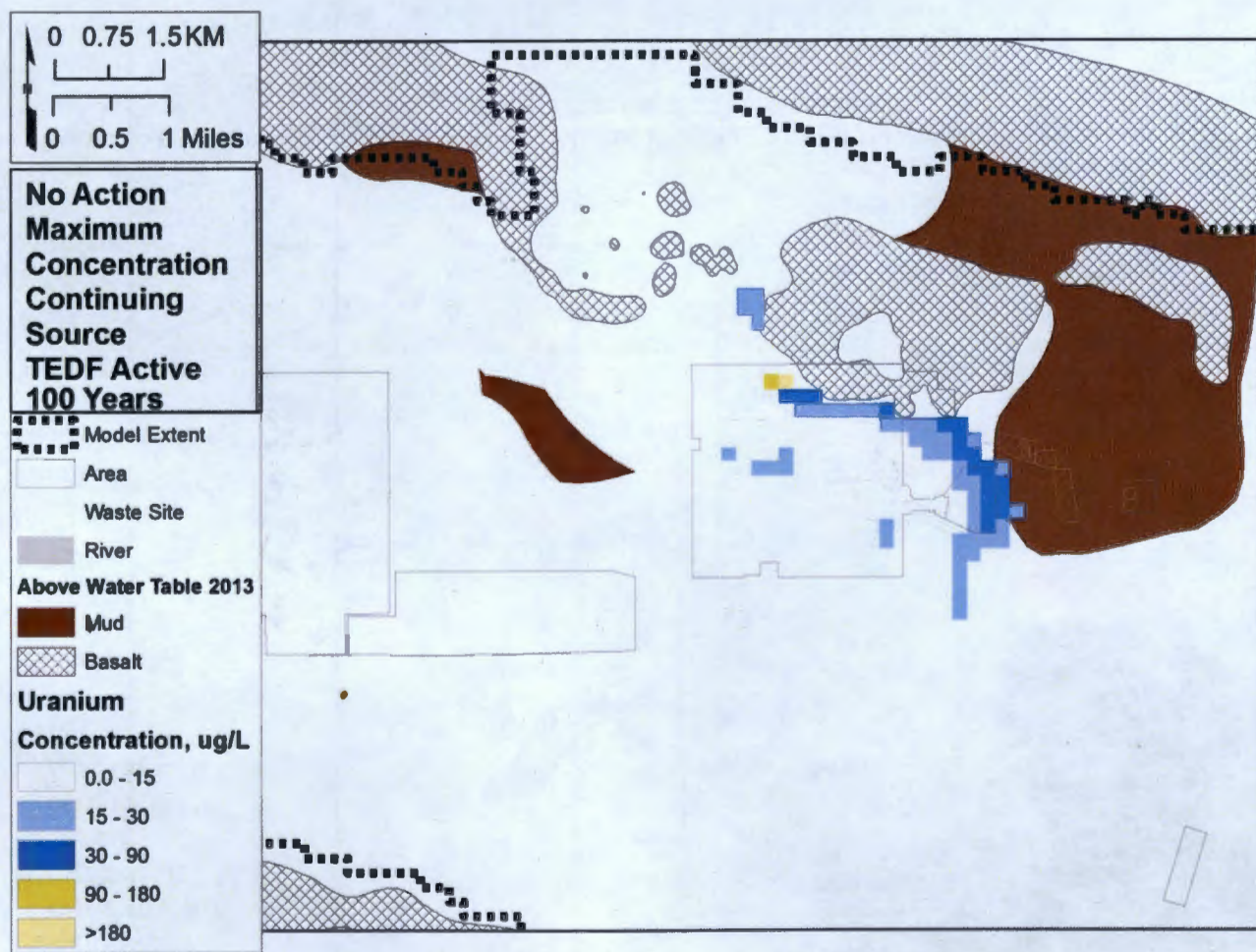


Figure B-444 - Plan view contours of the uranium plume at simulation time 100 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

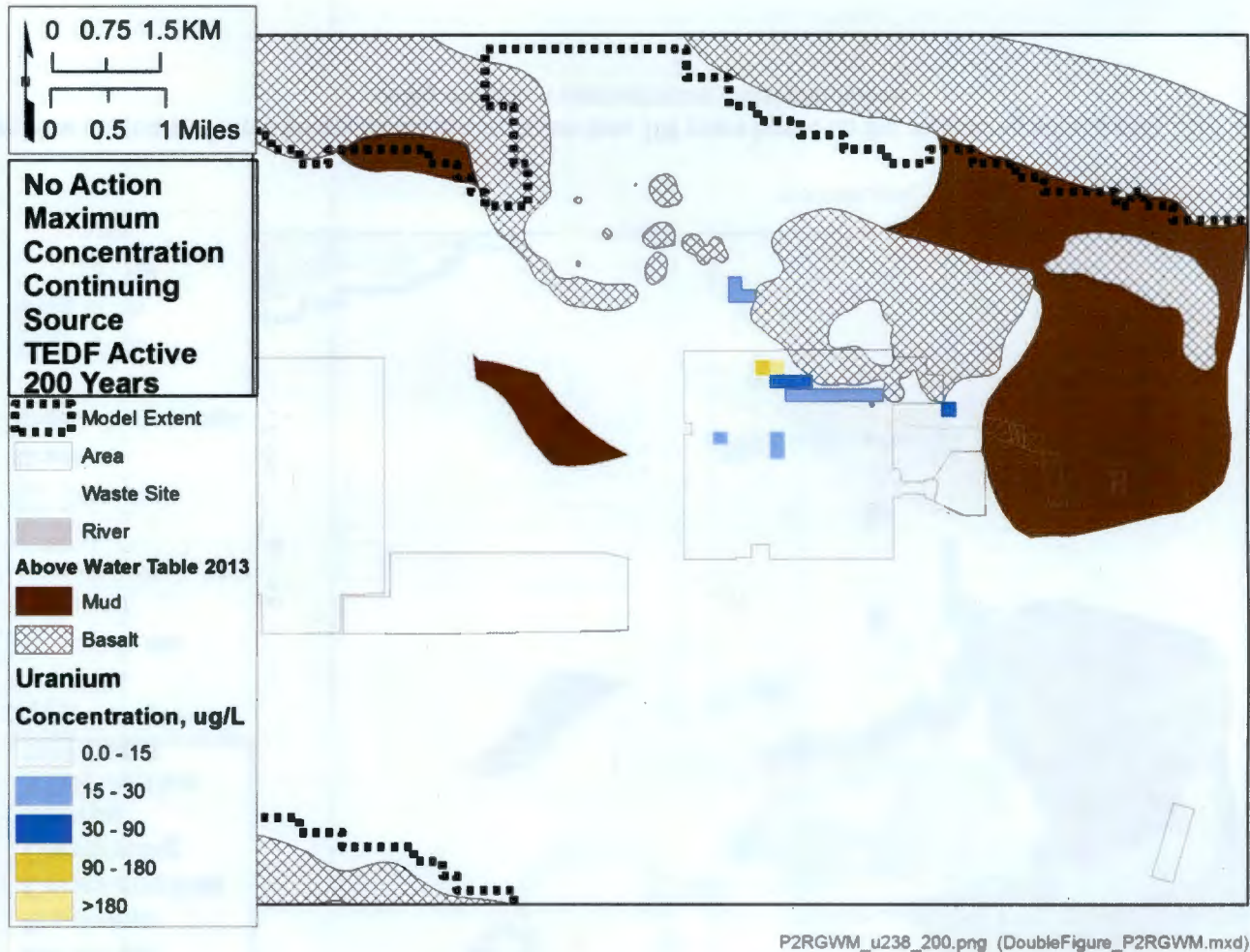
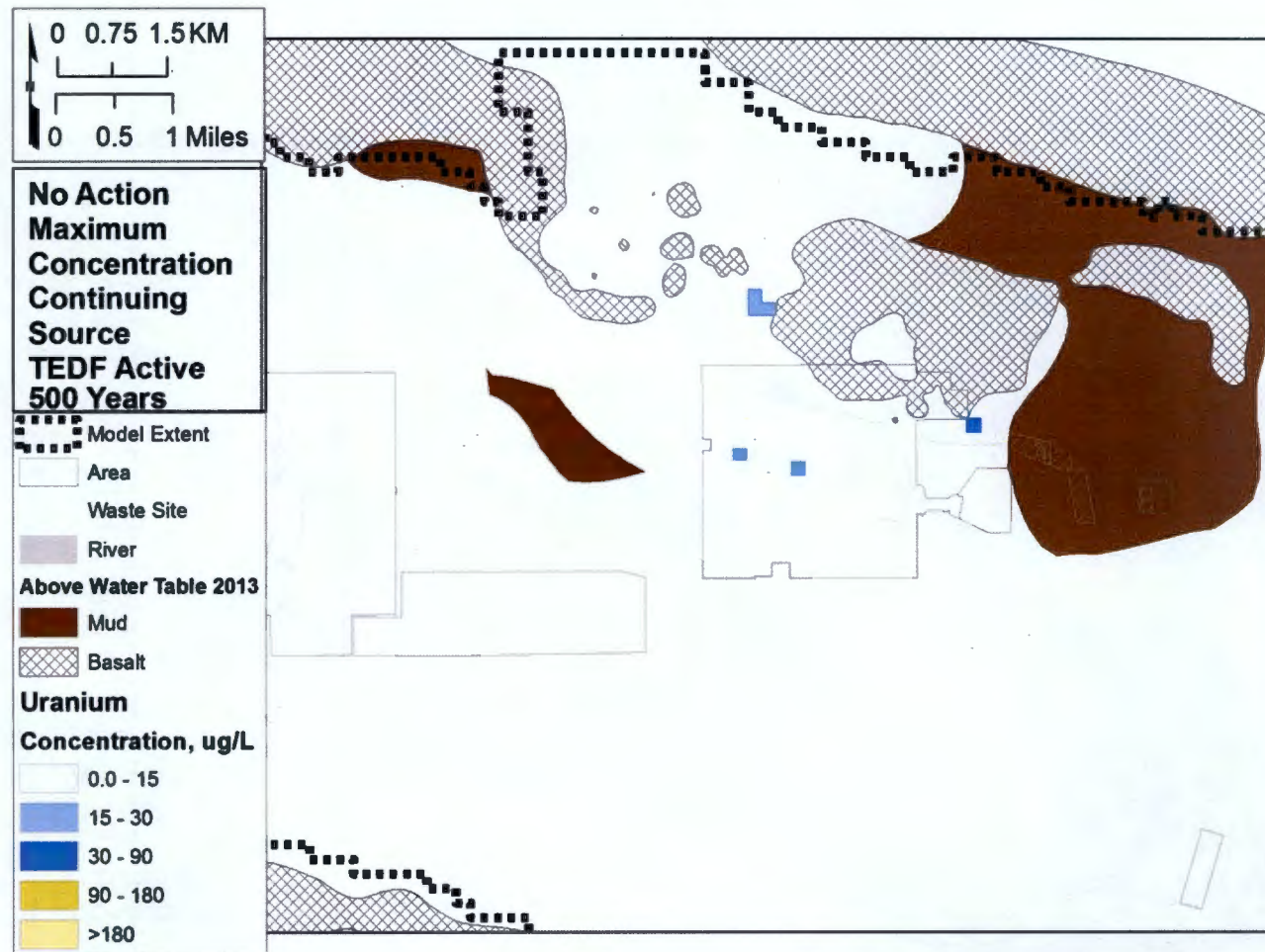


Figure B-445 - Plan view contours of the uranium plume at simulation time 200 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions



P2RGWM_u238_500.png (DoubleFigure_P2RGWM.mxd)

Figure B-446 - Plan view contours of the uranium plume at simulation time 500 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

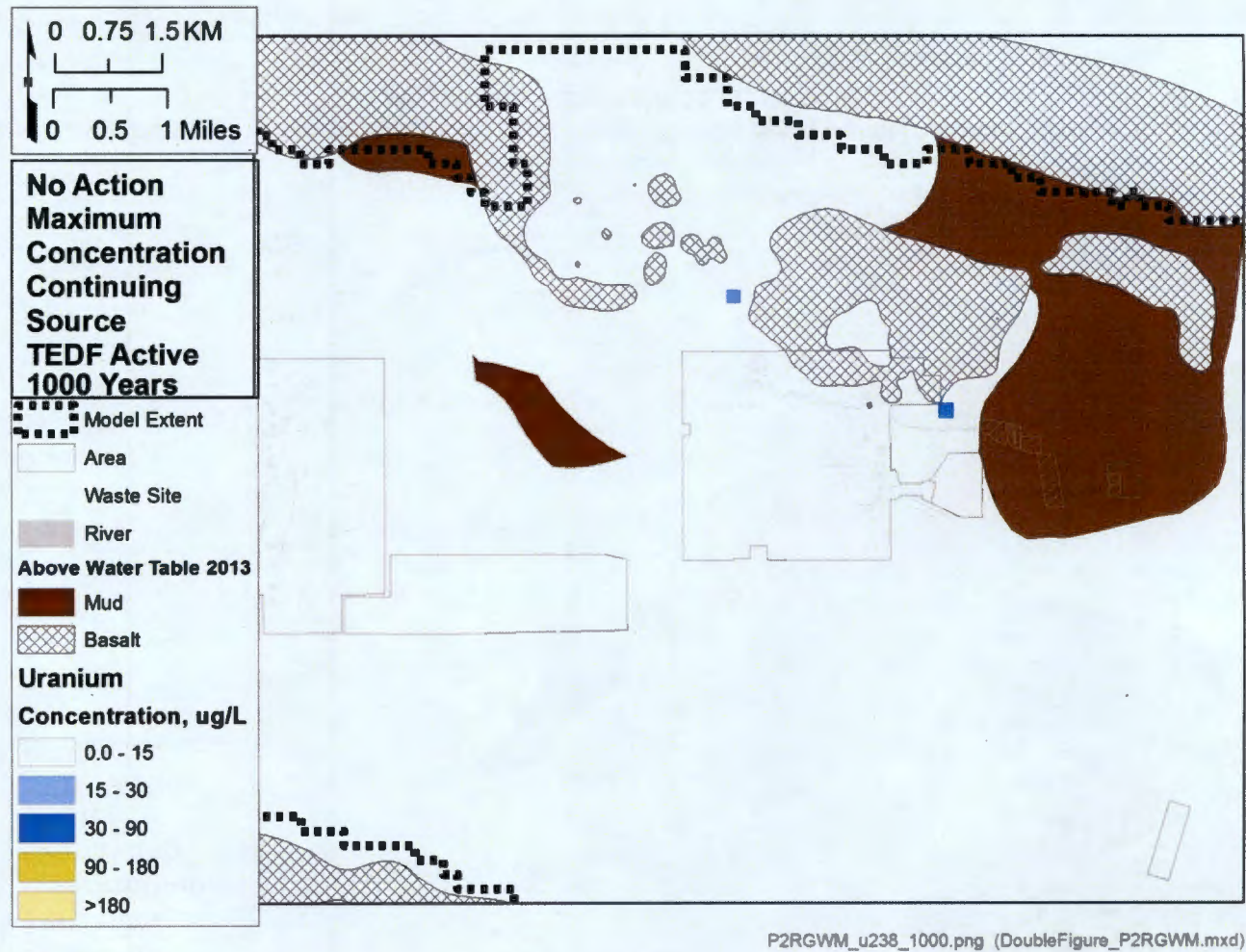


Figure B-447 - Plan view contours of the uranium plume at simulation time 1000 years based on the continuing source with TEDF future use simulation using maximum concentration initial conditions

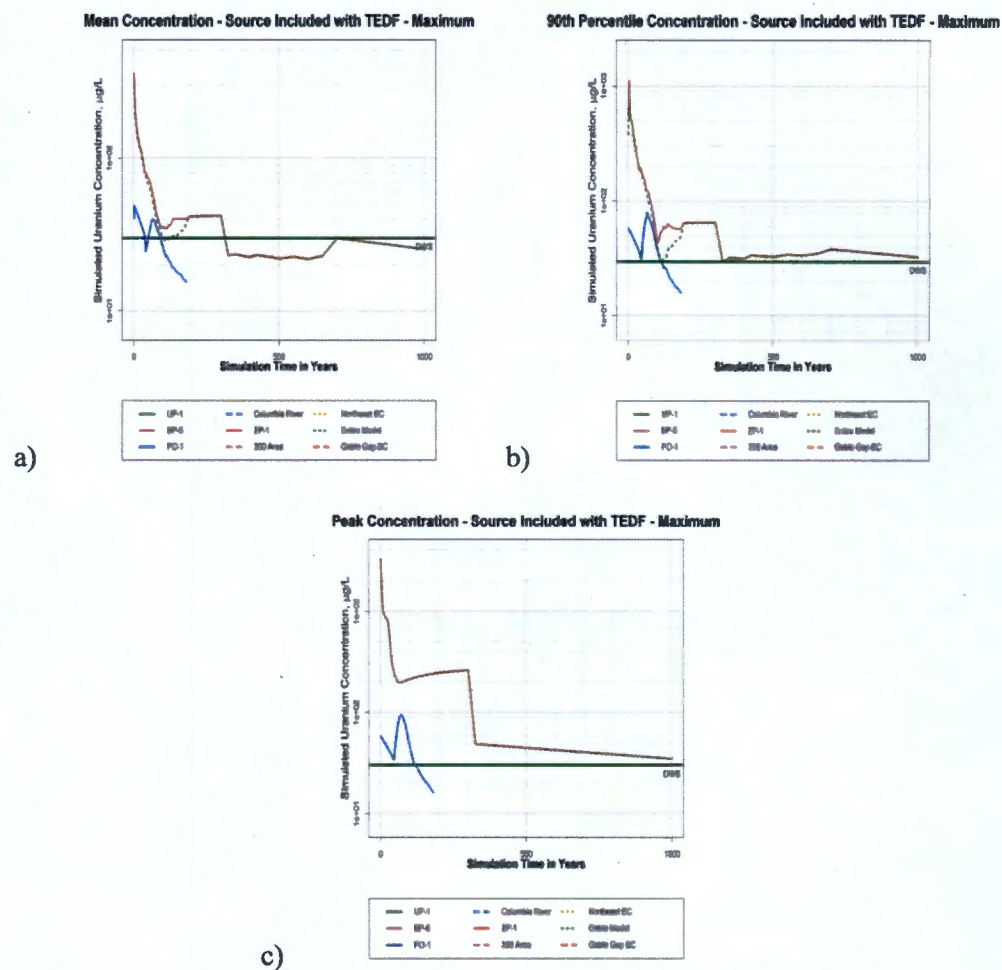


Figure B-448 - Statistical summary of simulated concentration within subregions of the model domain for the uranium plume for the continuing source with TEDF future use simulation using maximum concentration initial conditions.